MINERALS

ECONOMIC & REGIONAL DEVELOPMENT AGREEMENT

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CANADA - MANITOBA

MINERAL DEVELOPMENT AGREEMENT

RESEARCH & DEVELOPMENT IN MANITOBA MINES

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Final Report
TASK 1A - VBM Design Guidelines
Chapter 2 - Data Collection Systems
Volume II - Appendices A-F

by

Inco Limited, Thompson Division
Thompson, Manitoba

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CANADA - MANITOBA
MINERAL DEVELOPMENT AGREEMENT
RESEARCH & DEVELOPMENT IN MANITOBA MINES

VERTICAL BLOCK MINING (VBM) DESIGN GUIDELINES

Chapter 2

Data Collection Systems

This chapter has been prepared as part of the

TASK 1A
VERTICAL BLOCK MINING DESIGN GUIDELINES PROJECT
of the
Canada/Manitoba Mineral Development Agreement

by

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CANADA - MANITOBA

MINERAL DEVELOPMENT AGREEMENT

RESEARCH & DEVELOPMENT IN MANITOBA MINES

VERTICAL BLOCK MINING (VBM) DESIGN GUIDELINES

The Vertical Block Mining (VBM) Design Guidelines consists seven chapters, published separately. The seven chapters are:

Summary

1. **Cut and Fill Mining**
2. **Data Collection Systems**
3. **VBM Stope Design**
4. **Drilling and Blasting**
5. **Support Requirements**
6. **VBM Stoping Procedures**

Reference to this chapter should be quoted as follows: "**Vertical Block Mining Design Guidelines Chapter 2 - Data Collection Systems**"; Canada/Manitoba Mineral Development Sector B - Mining; DSS File No. 14SQ.23440-4-9147-3; CANMET Project No. 4-9147-3; March 1990

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APPENDIX A

GLOSSARY OF ITEMS COLLECTED IN PROJECT DATABASE

GLOSSARY OF ITEMS A1 TO A3

APPENDIX A - GLOSSARY OF ITEMS COLLECTED IN PROJECT DATABASE

LEVEL:	Horizontal openings driven from the shaft(s) to gain access to the orebody, established at 200 and 400 hundred foot vertical spacing at Thompson Mine.
STOPE:	Defines a workplace in the orebody as a separate entity, which is limited in vertical height by levels, in length by practicality and in width by the ore zone.
ZONE:	An occurrence of or portion of the orebody limited by local geological boundaries.
HEIGHT:	The distance along dip from the back to the sill (mucking floor) of the block.
WIDTH:	The distance between the hanging wall and foot wall perpendicular to dip.
LENGTH:	The horizontal distance along strike of a block.
DIP:	The average angle of the ore seam relative to a horizontal plane.
TONS CALC.:	The calculated tons in a block based on the height, width and length dimensions
TONS BLASTED:	The total tons blasted based on engineering visual inspection.
TONS REMOVED:	The total tons of muck (ore,rock,sand) removed (mucked out) based on the bucket count.
TONS REMAINING:	The total tons left as fill and deemed uneconomical.
TONS SLOUGH:	The total tons of uneconomical material (muck) resulting from ground or fill failure, calculated as the difference between tons blasted and tons removed and/or remaining in a block.
TONS BY FILL:	Tons of material removed from a block as calculated by the tons of fill required to fill the block.
ACT. TONS SANDFILL:	Total tons of fill placed based on sandplant instrumentation measurements.
BACK TYPE:	The condition of the back during mining, deemed stable, sloughing or information not available.
BACK - AVG FT:	The average feet of slough above the original back height.
HANGING WALL TYPE:	The condition of the hanging wall during mining, deemed stable, sloughing or information not available.
HW - AVG FT:	The average feet of slough off the hanging wall outside the mining plan.
FOOT WALL TYPE:	The condition of the foot wall during mining, deemed stable, sloughing or information not available.
FOOT WALL - AVG FT:	The average feet of slough off the foot wall outside the mining plan.
R.Q.D.:	The Rock Quality Designation based on scanline survey.

THMP RQD CORE:	Rock Quality Designation based on Thompson Mine drill core.
CORR. THMP RQD:	Modified RQD for small diameter core.
Ja:	Joint alteration factor.
Jn:	The number of joint sets.
Jr:	Joint surface roughness.
SRF:	Stress reduction factor.
Q:	Rock quality.
PRIMARY ROCK TYPE:	Predominant rock type.
UCS OF ROCK:	Uniaxial compressive strength.
JOINT SET DIP:	Angle of dip of the joint set.
JOINT SET AZIMUTH:	Directional strike of a given joint set.
JOINT SET FREQUENCY:	Joint persistence over a given area.
HOLE SIZE:	Drill hole diameter in inches.
NO. FULL LENGTH HOLES:	Number of drill holes extending from the drill sub and breaking through the mucking sub back.
NO.BLIND:	Number of drill holes not breaking through but used in blasting.
TOTAL NUMBER HOLES:	The number of holes drilled in a block.
TOTAL FOOTAGE:	The number of feet of drilling in a block.
CLEANING FOOTAGE:	The total feet of drill hole cleaning required to maintain open holes for charging.
FOOTAGE REDRILLING:	The total feet of fill-in holes required for efficient blasting.
# SHIFTS DRILLING:	The number of shifts required to drill off a block.
AVG. FTGE./SHIFT:	The average footage per shift achieved over the drilling off of a block.
CALCULATED BURDEN:	The theoretical burden on the holes in a given, calculated as a function of the layout spacing and number of holes for a given area.
SPACING:	The layout (theoretical) distance between rows of blast holes in a block.
SQ FT/HOLE:	The average area of influence per blast hole in a Block, calculated as a function of the number of holes for a given area.
TONS/FT:	Tons of ore broken per foot of hole (blast hole) blasted.
TOTAL EXPLOSIVES:	Total amount of explosives used to mine a block, expressed in lbs.
# BLASTS:	Number of blasts taken to mine a given block.

AVERAGE CHARGE:	The average amount of explosive used per hole, per blast.
AVERAGE STANDOFF:	The distance from the blast face to the centre of a blast hole explosive charge.
BLAST TYPE:	The blasting method deemed crater,slash or a combination.
DAYS BLASTING:	The total number of days to blast out a block.
POWDER FACTOR:	The ratio of explosive to tons of muck broken in a given block, expressed as lbs/ton.
AVG.LBS.EXP./BLAST:	Average total pounds of explosives per blast.
AVG.TONS/BLAST:	Average tons broken per blast.
HAUL DISTANCE:	Distance from the draw point of a block to the ore pass, expressed in feet.
SCOOP:	Size of the LHD bucket.
ACT DAYS MUCKING:	Total number of (elapsed) days required to muck out a block.
SHIFTS MUCKING:	Total number of shifts required to muck out a block.
TONS/DAY:	Average tons mucked into the orepass per day over the life of a block.
TONS/SHIFT:	Average tons mucked into the orepass per shift.
VBM TYPE:	The method of VBM mining deemed retreat or transverse.
DRAWPOINT LENGTH:	Distance from the block mucking brow to the extraction drift.
DRAWPOINT PILLAR WIDTH:	The width of the pillar between adjacent drawpoints.

APPENDIX B

STOPE DATA FILES

STOPE DATA FILE SHEETS	B1 TO B251

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	803	ZONE:	1C
4	STOPE:	340	GRADE:	2.47
5	BLOCK:	1	TONNAGE FACTOR:	10.77
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	6.0	6.0	6.0
14	Jr:	1.5	1.5	1.5
15	Q:	14.2	11.3	14.2
16	PRIMARY ROCK TYPE	SCHIST	MASSIVE SULPHIDE	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP	48	48	48
36	J SET #5 AZIMUTH	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.5	1.0
41	B:	0.5	0.4	0.5
42	C:	3.1	1.0	3.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	803	
51		STOPE:	340	
52		BLOCK:	1	
53	#DIV/0!			
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	170.0	DIST. TO ORE PASS:	320
56	WIDTH - DESIGN:	10.6	SCOOP #1:	2.0
57	LENGTH - DESIGN:	52.0	SCOOP #1 PERCENT:	100.0
58	DIP:	45	SCOOP #2:	N/A
59	TONS - BLASTED:	10564	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	9834	TOTAL DAYS MUCKED:	32
61			ACT. DAYS MUCKING:	32
62			TONS/DAY:	307
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	NA
69	HW - AVG FT	4	Pillar width:	NA
70	FOOTWALL - TYPE	Stable	Hw or Fw:	NA
71	FOOTWALL - AVG FT	0	Width:	NA
72	ACT. TONS SANDFILL:	4924	Heigth:	NA
73	TONS BY SANDFILL:	8687		
74	S - SAND - HW:	6.1		
75	S - BACK - NO SAND:	1.3		
76	S-BACK-SAND	1.3		
77	S - FW - SAND:	6.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	18657
82	NO. - FULL LENGTH:	26	lbs. AQUAMEX:	18657
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	26	lbs. OTHER:	0
85	TOTAL FOOTAGE:	8114	NO. OF BLASTS:	28.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	27.0
87	FTGE. REDRILL:	410	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	68.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	119.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.1	BLAST TYPE:	crater
91	SPACING:	4.0	DAYS BLASTING:	28
92	X-AREA @ B'THRU:	910	POWD FCTR lb\TON	1.90
93	NO. HOLES B'THRU:	26	AVG. lbs EXP/ BLAST:	666
94	SQ. FT. PER HOLE:	35.0	AVG TONS / BLAST:	351
95	TONS PER FOOT:	1.30		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	1.80
5	BLOCK:	8A	TONNAGE FACTOR:	9.75
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	QUARTZITE/SCHIST	SULPHIDE MATRIX	MSCHIST/PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.4	1.0
41	B:	0.5	0.35	0.5
42	C:	7.4	1.0	7.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	1201	
52		STOPE:	3 SH	
53		BLOCK:	8A	
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	195.0	DIST. TO ORE PASS:	370
56	WIDTH - DESIGN:	25.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	26.0	SCOOP #1 PERCENT:	N/A
58	DIP:	85	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	23533	TOTAL DAYS MUCKED:	224
61			ACT. DAYS MUCKING:	102
62			TONS/DAY:	231
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	100
69	HW - AVG FT	0.6	Pillar width:	22
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	HW
71	FOOTWALL - AVG FT	4.2	Width:	13
72	ACT. TONS SANDFILL:	15237	Heigth:	9
73	TONS BY SANDFILL:	29693		
74	S - SAND - HW:	3.5		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	3.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	23655
82	NO. - FULL LENGTH:	15	lbs. AQUAMEX:	23655
83	NO. - BLIND	24	lbs. AMEX:	0
84	TOTAL NUMBER:	39	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6057	NO. OF BLASTS:	30.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	15.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	15.0
88	# SHIFTS DRILLING:	65.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	93.2	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	4.4	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	54
92	X-AREA @ B'THRU:	600	POWD FCTR lb\TON	1.01
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	789
94	SQ. FT. PER HOLE:	40.0	AVG TONS / BLAST:	784
95	TONS PER FOOT:	3.89		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	13	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	M SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	66	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.8	1.0	6.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	13	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	55.0	DIST. TO ORE PASS:	372
56	WIDTH - DESIGN:	52.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	36.0	SCOOP #1 PERCENT:	N/A
58	DIP:	80	SCOOP #2:	2.0
59	TONS - BLASTED:	26292	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	27257	TOTAL DAYS MUCKED:	107
61			ACT. DAYS MUCKING:	41
62			TONS/DAY:	665
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	4	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	35
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Geological	Hw or Fw:	FW
71	FOOTWALL - AVG FT	5	Width:	11
72	ACT. TONS SANDFILL:	15920	Heigth:	10
73	TONS BY SANDFILL:	32543		
74	S - SAND - HW:	3.3		
75	S - BACK - NO SAND:	4.6		
76	S-BACK-SAND	3.2		
77	S - FW - SAND:	3.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	9240
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	9240
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2907	NO. OF BLASTS:	1.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	32.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	90.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.0	BLAST TYPE:	SLASH
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1800	POWD FCTR lb\TON	0.34
93	NO. HOLES B'THRU:	20	AVG. lbs EXP/ BLAST:	9240
94	SQ. FT. PER HOLE:	90.0	AVG TONS / BLAST:	27257
95	TONS PER FOOT:	9.04		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	14 &15	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	M SCHIST	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	66	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	14 &15	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	90.0	DIST. TO ORE PASS:	372
56	WIDTH - DESIGN:	40.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	N/A
58	DIP:	75	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	18636	TOTAL DAYS MUCKED:	75
61			ACT. DAYS MUCKING:	49
62			TONS/DAY:	380
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	3	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	55
69	HW - AVG FT	1.9	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	6465	Heigth:	10
73	TONS BY SANDFILL:	13215		
74	S - SAND - HW:	5.9		
75	S - BACK - NO SAND:	3.9		
76	S-BACK-SAND	3.8		
77	S - FW - SAND:	5.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	16074
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	16074
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3371	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	2622	NO. CRATER BLASTS:	0.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	14.0
88	# SHIFTS DRILLING:	40.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	84.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.3	BLAST TYPE:	T-3 METHOD
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2400	POWD FCTR lb\TON	0.86
93	NO. HOLES B'THRU:	32	AVG. lbs EXP/ BLAST:	1148
94	SQ. FT. PER HOLE:	75.0	AVG TONS / BLAST:	1331
95	TONS PER FOOT:	5.53		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	16&17	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	16&17	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	85.0	DIST. TO ORE PASS:	239
56	WIDTH - DESIGN:	30.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	58.0	SCOOP #1 PERCENT:	N/A
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	12000	TOTAL DAYS MUCKED:	87
61			ACT. DAYS MUCKING:	54
62			TONS/DAY:	222
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	45
69	HW - AVG FT	0.5	Pillar width:	24
70	FOOTWALL - TYPE	Stable	Hw or Fw:	Fw
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	6300	Heigth:	10
73	TONS BY SANDFILL:	12878		
74	S - SAND - HW:	5.3		
75	S - BACK - NO SAND:	3.0		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	5.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	13530
82	NO. - FULL LENGTH:	NA	lbs. AQUAMEX:	13530
83	NO. - BLIND	NA	lbs. AMEX:	0
84	TOTAL NUMBER:	NA	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4438	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	480	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	NA	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	44.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	100.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.3	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1950	POWD FCTR lb\TON	1.13
93	NO. HOLES B'THRU:	21	AVG. lbs EXP/ BLAST:	1128
94	SQ. FT. PER HOLE:	92.9	AVG TONS / BLAST:	1000
95	TONS PER FOOT:	2.70		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	3.56
5	BLOCK:	18	TONNAGE FACTOR:	9.30
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.5	1.0	6.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	18	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	80.0	DIST. TO ORE PASS:	299
56	WIDTH - DESIGN:	18.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	58.0	SCOOP #1 PERCENT:	N/A
58	DIP:	78	SCOOP #2:	N/A
59	TONS - BLASTED:	8335	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	8590	TOTAL DAYS MUCKED:	114
61			ACT. DAYS MUCKING:	55
62			TONS/DAY:	156
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	45
69	HW - AVG FT	0	Pillar width:	18
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	3175	Heigth:	10
73	TONS BY SANDFILL:	6487		
74	S - SAND - HW:	5.1		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	5.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14820
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	14820
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2625	NO. OF BLASTS:	35.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	17.0
87	FTGE. REDRILL:	467	NO. SLASH BLASTS:	18.0
88	# SHIFTS DRILLING:	123.0	AVG. CHG. WT:	27.0
89	AVG. FTGE. / SHIFT:	21.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.4	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	780	POWD FCTR lb\TON	1.73
93	NO. HOLES B'THRU:	29	AVG. lbs EXP/ BLAST:	423
94	SQ. FT. PER HOLE:	26.9	AVG TONS / BLAST:	245
95	TONS PER FOOT:	3.27		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	2&3	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	2&3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	75.0	DIST. TO ORE PASS:	505
56	WIDTH - DESIGN:	30.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	65.0	SCOOP #1 PERCENT:	N/A
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	17960	TOTAL DAYS MUCKED:	273
61			ACT. DAYS MUCKING:	76
62			TONS/DAY:	236
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	30
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	9190	Heigth:	10
73	TONS BY SANDFILL:	18786		
74	S - SAND - HW:	5.3		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	3.1		
77	S - FW - SAND:	5.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11391
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	11391
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6195	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	1480	NO. CRATER BLASTS:	6.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	7.0
88	# SHIFTS DRILLING:	94.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	65.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.9	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	3210	POWD FCTR lb\TON	0.63
93	NO. HOLES B'THRU:	45	AVG. lbs EXP/ BLAST:	876
94	SQ. FT. PER HOLE:	71.3	AVG TONS / BLAST:	1382
95	TONS PER FOOT:	2.90		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	5&6	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	QUARTZITE	MASSIVE SULPHIDE	M QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	5&6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	70.0	DIST. TO ORE PASS:	370
56	WIDTH - DESIGN:	80.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	60703	TOTAL DAYS MUCKED:	119
61			ACT. DAYS MUCKING:	65
62			TONS/DAY:	934
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	19	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	40
69	HW - AVG FT	6.5	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW & FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	26168	Heigth:	10
73	TONS BY SANDFILL:	53491		
74	S - SAND - HW:	4.9		
75	S - BACK - NO SAND:	NA		
76	S-BACK-SAND	5.2		
77	S - FW - SAND:	4.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	33441
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	33441
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3768	NO. OF BLASTS:	4.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	1.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	51.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	73.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	12.2	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	81
92	X-AREA @ B'THRU:	3300	POWD FCTR lb\TON	0.55
93	NO. HOLES B'THRU:	30	AVG. lbs EXP/ BLAST:	8360
94	SQ. FT. PER HOLE:	110.0	AVG TONS / BLAST:	15176
95	TONS PER FOOT:	16.11		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	1A
4	STOPE:	30	GRADE:	2.89
5	BLOCK:	1	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.1	1.0	6.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	2801	
51		STOPE:	30	
52		BLOCK:	1	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	125.0	DIST. TO ORE PASS:	390
56	WIDTH - DESIGN:	17.4	SCOOP #1:	3.5
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	N/A
58	DIP:	74	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11546	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	385
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6027	Heigth:	N/A
73	TONS BY SANDFILL:	12320		
74	S - SAND - HW:	6.2		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	6.[illegible]		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11600
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	9653
83	NO. - BLIND	N/A	lbs. AMEX:	330
84	TOTAL NUMBER:	N/A	lbs. OTHER:	1617
85	TOTAL FOOTAGE:	3993	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	2.0
88	# SHIFTS DRILLING:	31.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	128.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.1	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1050	POWD FCTR lb\TON	1.00
93	NO. HOLES B'THRU:	23	AVG. lbs EXP/ BLAST:	829
94	SQ. FT. PER HOLE:	45.7	AVG TONS / BLAST:	825
95	TONS PER FOOT:	2.89		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	1A
4	STOPE:	30	GRADE:	2.89
5	BLOCK:	2	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.0	1.0	6.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	30	
52		BLOCK:	2	
53			**MUCKING**	
54	**BLOCK SPECS**		DIST. TO ORE PASS:	705
55	HEIGHT - DESIGN:	112.0	SCOOP #1:	3.5
56	WIDTH - DESIGN:	24.0	SCOOP #1 PERCENT:	N/A
57	LENGTH - DESIGN:	75.0	SCOOP #2:	N/A
58	DIP:	73	SCOOP #2 PERCENT:	N/A
59	TONS - BLASTED:	N/A	TOTAL DAYS MUCKED:	N/A
60	TONS - REMOVED:	12428	ACT. DAYS MUCKING:	31
61			TONS/DAY:	401
62				
63				
64			DEVELOPMENT	
65	**SLOUGH**		VBM TYPE:	RETREAT
66	BACK - TYPE	Stable	FOR Transverse VBM:	
67	BACK - AVG FT	0	Length:	N/A
68	HW - TYPE	Slough	Pillar width:	N/A
69	HW - AVG FT	10	Hw or Fw:	N/A
70	FOOTWALL - TYPE	Stable	Width:	N/A
71	FOOTWALL - AVG FT	0	Heigth:	N/A
72	ACT. TONS SANDFILL:	5424		
73	TONS BY SANDFILL:	11087		
74	S - SAND - HW:	6.8		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	6.8		
78				
79			**BLASTING**	
80	**DRILLING**		TOTAL EXPLOSIVE:	12182
81	HOLE SIZE:	6.5	lbs. AQUAMEX:	12182
82	NO. - FULL LENGTH:	N/A	lbs. AMEX:	0
83	NO. - BLIND	N/A	lbs. OTHER:	0
84	TOTAL NUMBER:	N/A	NO. OF BLASTS:	14.0
85	TOTAL FOOTAGE:	2198	NO. CRATER BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. SLASH BLASTS:	1.0
87	FTGE. REDRILL:	143	AVG. CHG. WT:	55.0
88	# SHIFTS DRILLING:	N/A	AVG. STANDOFF:	5.0
89	AVG. FTGE. / SHIFT:	N/A	BLAST TYPE:	CRATER
90	CALC. BURDEN:	4.9	DAYS BLASTING:	N/A
91	SPACING:	9.0	POWD FCTR lb\TON	0.98
92	X-AREA @ B'THRU:	880	AVG. lbs EXP/ BLAST:	870
93	NO. HOLES B'THRU:	20	AVG TONS / BLAST:	888
94	SQ. FT. PER HOLE:	44.0		
95	TONS PER FOOT:	5.65		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	1A
4	STOPE:	30	GRADE:	2.89
5	BLOCK:	3	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A		C	D
49	**MINING DATA**			
50				
51		LEVEL:	2801	
52		STOPE:	30	
53		BLOCK:	3	
54	**BLOCK SPECS**			
55	HEIGHT - DESIGN:	122.0	**MUCKING**	
56	WIDTH - DESIGN:	16.1	DIST. TO ORE PASS:	335
57	LENGTH - DESIGN:	90.0	SCOOP #1:	3.5
58	DIP:	64	SCOOP #1 PERCENT:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2:	N/A
60	TONS - REMOVED:	10555	SCOOP #2 PERCENT:	N/A
61			TOTAL DAYS MUCKED:	32
62			ACT. DAYS MUCKING:	22
63			TONS/DAY:	480
64				
65	**SLOUGH**			
66	BACK - TYPE	Stable	DEVELOPMENT	
67	BACK - AVG FT	0	VBM TYPE:	RETREAT
68	HW - TYPE	Overbreak	FOR Transverse VBM:	
69	HW - AVG FT	1.3	Length:	N/A
70	FOOTWALL - TYPE	Stable	Pillar width:	N/A
71	FOOTWALL - AVG FT	0	Hw or Fw:	N/A
72	ACT. TONS SANDFILL:	6432	Width:	N/A
73	TONS BY SANDFILL:	13148	Heigth:	N/A
74	S - SAND - HW:	7.9		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	7.9		
78				
79				
80	**DRILLING**			
81	HOLE SIZE:	6.5	**BLASTING**	
82	NO. - FULL LENGTH:	22	TOTAL EXPLOSIVE:	17022
83	NO. - BLIND	19	lbs. AQUAMEX:	11577
84	TOTAL NUMBER:	41	lbs. AMEX:	5445
85	TOTAL FOOTAGE:	2753	lbs. OTHER:	0
86	CLEANING FOOTAGE:	N/A	NO. OF BLASTS:	20.0
87	FTGE. REDRILL:	0	NO. CRATER BLASTS:	10.0
88	# SHIFTS DRILLING:	25.0	NO. SLASH BLASTS:	10.0
89	AVG. FTGE. / SHIFT:	110.1	AVG. CHG. WT:	55.0
90	CALC. BURDEN:	5.4	AVG. STANDOFF:	5.0
91	SPACING:	9.0	BLAST TYPE:	CRATER /SLASH 2
92	X-AREA @ B'THRU:	1078	DAYS BLASTING:	N/A
93	NO. HOLES B'THRU:	22	POWD FCTR lb\TON	1.61
94	SQ. FT. PER HOLE:	49.0	AVG. lbs EXP/ BLAST:	851
95	TONS PER FOOT:	3.83	AVG TONS / BLAST:	528
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	1A
4	STOPE:	30	GRADE:	2.89
5	BLOCK:	4	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	3.8	1.0	3.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	30	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	115.0	DIST. TO ORE PASS:	810
56	WIDTH - DESIGN:	16.4	SCOOP #1:	3.5
57	LENGTH - DESIGN:	112.0	SCOOP #1 PERCENT:	N/A
58	DIP:	53	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	21356	TOTAL DAYS MUCKED:	67
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	534
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	11637	Heigth:	N/A
73	TONS BY SANDFILL:	23788		
74	S - SAND - HW:	8.6		
75	S - BACK - NO SAND:	2.2		
76	S-BACK-SAND	2.2		
77	S - FW - SAND:	8.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	13685
82	NO. - FULL LENGTH:	34	lbs. AQUAMEX:	1815
83	NO. - BLIND	7	lbs. AMEX:	11870
84	TOTAL NUMBER:	41	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3429	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	6.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	6.0
88	# SHIFTS DRILLING:	30.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	114.3	AVG. STANDOFF:	5.5
90	CALC. BURDEN:	8.0	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1904	POWD FCTR lb\TON	0.64
93	NO. HOLES B'THRU:	34	AVG. lbs EXP/ BLAST:	1140
94	SQ. FT. PER HOLE:	56.0	AVG TONS / BLAST:	1780
95	TONS PER FOOT:	6.23		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.89
5	BLOCK:	8B	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	QUARTZITE/SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.35	0.5
42	C:	7.5	1.0	7.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1201	
51		STOPE:	3 SH	
52		BLOCK:	8B	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	66.0	DIST. TO ORE PASS:	508
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	47.0	SCOOP #1 PERCENT:	N/A
58	DIP:	86	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	4999	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	20
62			TONS/DAY:	250
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	80
69	HW - AVG FT	0	Pillar width:	50
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	1157	Heigth:	9
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	5.8		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	5.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	5088
82	NO. - FULL LENGTH:	15	lbs. AQUAMEX:	2475
83	NO. - BLIND	1	lbs. AMEX:	2613
84	TOTAL NUMBER:	16	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1990	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	4.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	4.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.0	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	7.0	DAYS BLASTING:	21
92	X-AREA @ B'THRU:	950	POWD FCTR lb\TON	1.02
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	636
94	SQ. FT. PER HOLE:	63.3	AVG TONS / BLAST:	625
95	TONS PER FOOT:	2.51		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	2SH
4	STOPE:	238	GRADE:	5.85
5	BLOCK:	1	TONNAGE FACTOR:	8.50
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	2801	
51		STOPE:	238	
52		BLOCK:	1	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	132.0	DIST. TO ORE PASS:	275
56	WIDTH - DESIGN:	17.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	58.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	13503	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11945	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	47
62			TONS/DAY:	254
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6124	Heigth:	N/A
73	TONS BY SANDFILL:	13689		
74	S - SAND - HW:	6.1		
75	S - BACK - NO SAND:	2.0		
76	S-BACK-SAND	2.0		
77	S - FW - SAND:	6.1		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14933
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	6078
83	NO. - BLIND	N/A	lbs. AMEX:	8855
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4050	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	3789	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	410	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	41.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	98.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.3	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	999	POWD FCTR lb\TON	1.25
93	NO. HOLES B'THRU:	27	AVG. lbs EXP/ BLAST:	1493
94	SQ. FT. PER HOLE:	37.0	AVG TONS / BLAST:	1195
95	TONS PER FOOT:	2.95		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	3.38
5	BLOCK:	1	TONNAGE FACTOR:	9.33
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.0	1.0	4.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	1	
53			**MUCKING**	
54	**BLOCK SPECS**		DIST. TO ORE PASS:	525
55	HEIGHT - DESIGN:	130.0	SCOOP #1:	3.5
56	WIDTH - DESIGN:	68.0	SCOOP #1 PERCENT:	N/A
57	LENGTH - DESIGN:	36.0	SCOOP #2:	N/A
58	DIP:	55	SCOOP #2 PERCENT:	N/A
59	TONS - BLASTED:	N/A	TOTAL DAYS MUCKED:	N/A
60	TONS - REMOVED:	23210	ACT. DAYS MUCKING:	65
61			TONS/DAY:	357
62				
63				
64			**DEVELOPMENT**	
65	**SLOUGH**		VBM TYPE:	RETREAT
66	BACK - TYPE	Stable	FOR Transverse VBM:	
67	BACK - AVG FT	0	Length:	N/A
68	HW - TYPE	Slough	Pillar width:	N/A
69	HW - AVG FT	5	Hw or Fw:	N/A
70	FOOTWALL - TYPE	Stable	Width:	N/A
71	FOOTWALL - AVG FT	0	Heigth:	N/A
72	ACT. TONS SANDFILL:	10329		
73	TONS BY SANDFILL:	21034		
74	S - SAND - HW:	4.3		
75	S - BACK - NO SAND:	3.6		
76	S-BACK-SAND	3.6		
77	S - FW - SAND:	4.3		
78				
79			**BLASTING**	
80	**DRILLING**		TOTAL EXPLOSIVE:	14272
81	HOLE SIZE:	6.5	lbs. AQUAMEX:	14272
82	NO. - FULL LENGTH:	N/A	lbs. AMEX:	0
83	NO. - BLIND	N/A	lbs. OTHER:	0
84	TOTAL NUMBER:	N/A	NO. OF BLASTS:	3.0
85	TOTAL FOOTAGE:	5214	NO. CRATER BLASTS:	1.0
86	CLEANING FOOTAGE:	3165	NO. SLASH BLASTS:	2.0
87	FTGE. REDRILL:	0	AVG. CHG. WT:	55.0
88	# SHIFTS DRILLING:	41.0	AVG. STANDOFF:	5.0
89	AVG. FTGE. / SHIFT:	127.2	BLAST TYPE:	CRATER /SLASH 1
90	CALC. BURDEN:	8.3	DAYS BLASTING:	N/A
91	SPACING:	9.0	POWD FCTR lb\TON	0.61
92	X-AREA @ B'THRU:	2025	AVG. lbs EXP/ BLAST:	4757
93	NO. HOLES B'THRU:	27	AVG TONS / BLAST:	7737
94	SQ. FT. PER HOLE:	75.0		
95	TONS PER FOOT:	4.45		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	2.66
5	BLOCK:	2	TONNAGE FACTOR:	9.55
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	8.0	1.0	8.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	122.0	DIST. TO ORE PASS:	310
56	WIDTH - DESIGN:	21.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	62.0	SCOOP #1 PERCENT:	N/A
58	DIP:	90	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11004	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	17
62			TONS/DAY:	647
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	4	Width:	N/A
72	ACT. TONS SANDFILL:	5314	Heigth:	N/A
73	TONS BY SANDFILL:	10572		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	4.7		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	6177
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	4394
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	1783
85	TOTAL FOOTAGE:	1852	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	1099	NO. CRATER BLASTS:	4.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	4.0
88	# SHIFTS DRILLING:	16.0	AVG. CHG. WT:	41.3
89	AVG. FTGE. / SHIFT:	115.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.4	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	882	POWD FCTR lb\TON	0.56
93	NO. HOLES B'THRU:	18	AVG. lbs EXP/ BLAST:	772
94	SQ. FT. PER HOLE:	49.0	AVG TONS / BLAST:	1376
95	TONS PER FOOT:	5.94		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	3.38
5	BLOCK:	3	TONNAGE FACTOR:	9.33
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	3.1	1.0	3.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	135.0	DIST. TO ORE PASS:	1110
56	WIDTH - DESIGN:	60.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	46.0	SCOOP #1 PERCENT:	N/A
58	DIP:	46	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	21240	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	64
62			TONS/DAY:	332
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	75
69	HW - AVG FT	11	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	14
72	ACT. TONS SANDFILL:	13043	Heigth:	12
73	TONS BY SANDFILL:	26561		
74	S - SAND - HW:	5.2		
75	S - BACK - NO SAND:	5.7		
76	S-BACK-SAND	4.0		
77	S - FW - SAND:	5.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11226
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	10533
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	693
85	TOTAL FOOTAGE:	3655	NO. OF BLASTS:	3.0
86	CLEANING FOOTAGE:	2269	NO. CRATER BLASTS:	1.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	2.0
88	# SHIFTS DRILLING:	31.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	117.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	11.8	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2756	POWD FCTR lb\TON	0.53
93	NO. HOLES B'THRU:	26	AVG. lbs EXP/ BLAST:	3742
94	SQ. FT. PER HOLE:	106.0	AVG TONS / BLAST:	7080
95	TONS PER FOOT:	5.81		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	4.50
5	BLOCK:	4	TONNAGE FACTOR:	8.90
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	33
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	MASSIVE SULPHIDE	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	3.5	1.0	3.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	1515
56	WIDTH - DESIGN:	28.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	N/A
58	DIP:	50	SCOOP #2:	3.5
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	20580	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	39
62			TONS/DAY:	528
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	8	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5798	Heigth:	N/A
73	TONS BY SANDFILL:	12378		
74	S - SAND - HW:	6.7		
75	S - BACK - NO SAND:	5.6		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	6.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	18920
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	18920
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3718	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	876	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	33.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	112.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.8	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1196	POWD FCTR lb\TON	0.92
93	NO. HOLES B'THRU:	23	AVG. lbs EXP/ BLAST:	1720
94	SQ. FT. PER HOLE:	52.0	AVG TONS / BLAST:	1871
95	TONS PER FOOT:	5.54		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	6.40
5	BLOCK:	5	TONNAGE FACTOR:	8.33
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	MASSIVE SULPHIDE	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.2	1.0	4.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	120.0	DIST. TO ORE PASS:	1021
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	51.0	SCOOP #1 PERCENT:	N/A
58	DIP:	57	SCOOP #2:	N/A
59	TONS - BLASTED:	14036	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	13236	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	27
62			TONS/DAY:	490
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	2.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5075	Heigth:	N/A
73	TONS BY SANDFILL:	11576		
74	S - SAND - HW:	5.5		
75	S - BACK - NO SAND:	5.5		
76	S-BACK-SAND	2.9		
77	S - FW - SAND:	5.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	15927
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	15927
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2820	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	187	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	61.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	46.2	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.2	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1258	POWD FCTR lb\TON	1.20
93	NO. HOLES B'THRU:	17	AVG. lbs EXP/ BLAST:	1991
94	SQ. FT. PER HOLE:	74.0	AVG TONS / BLAST:	1655
95	TONS PER FOOT:	4.69		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	4.05
5	BLOCK:	6	TONNAGE FACTOR:	9.07
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	108.0	DIST. TO ORE PASS:	445
56	WIDTH - DESIGN:	64.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	36.0	SCOOP #1 PERCENT:	N/A
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	22198	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	15
62			TONS/DAY:	1480
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	25
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	6095	Heigth:	12
73	TONS BY SANDFILL:	12768		
74	S - SAND - HW:	4.1		
75	S - BACK - NO SAND:	6.0		
76	S-BACK-SAND	3.5		
77	S - FW - SAND:	4.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	18315
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	12980
83	NO. - BLIND	N/A	lbs. AMEX:	5335
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3699	NO. OF BLASTS:	6.0
86	CLEANING FOOTAGE:	346	NO. CRATER BLASTS:	5.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	41.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	90.2	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.4	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2052	POWD FCTR lb\TON	0.83
93	NO. HOLES B'THRU:	27	AVG. lbs EXP/ BLAST:	3053
94	SQ. FT. PER HOLE:	76.0	AVG TONS / BLAST:	3700
95	TONS PER FOOT:	6.00		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	4.40
5	BLOCK:	7	TONNAGE FACTOR:	8.96
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	3.9	1.0	3.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	124.0	DIST. TO ORE PASS:	450
56	WIDTH - DESIGN:	39.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	38.0	SCOOP #1 PERCENT:	N/A
58	DIP:	54	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	14056	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	26
62			TONS/DAY:	541
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	75
69	HW - AVG FT	5	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	14
72	ACT. TONS SANDFILL:	8244	Heigth:	12
73	TONS BY SANDFILL:	17482		
74	S - SAND - HW:	4.4		
75	S - BACK - NO SAND:	6.0		
76	S-BACK-SAND	2.9		
77	S - FW - SAND:	4.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11549
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	2612
83	NO. - BLIND	N/A	lbs. AMEX:	8937
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3080	NO. OF BLASTS:	4.0
86	CLEANING FOOTAGE:	1097	NO. CRATER BLASTS:	3.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	39.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	79.0	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	14.9	BLAST TYPE:	CRATER
91	SPACING:	4.5	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2077	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	31	AVG. lbs EXP/ BLAST:	2887
94	SQ. FT. PER HOLE:	67.0	AVG TONS / BLAST:	3514
95	TONS PER FOOT:	4.56		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2801	ZONE:	N
4	STOPE:	890	GRADE:	4.01
5	BLOCK:	8	TONNAGE FACTOR:	9.07
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	MASSIVE SULPHIDE	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.5	1.0	6.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2801	
51		STOPE:	890	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	111.0	DIST. TO ORE PASS:	480
56	WIDTH - DESIGN:	40.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	64.0	SCOOP #1 PERCENT:	N/A
58	DIP:	78	SCOOP #2:	3.5
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	18958	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	25
62			TONS/DAY:	758
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	RETREAT
66	BACK - TYPE	Stable	VBM TYPE:	
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	10296	Heigth:	N/A
73	TONS BY SANDFILL:	21568		
74	S - SAND - HW:	6.2		
75	S - BACK - NO SAND:	6.0		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	22220
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	2750
83	NO. - BLIND	N/A	lbs. AMEX:	19470
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5485	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	478	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	51.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	107.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	15.5	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1920	POWD FCTR lb\TON	1.17
93	NO. HOLES B'THRU:	31	AVG. lbs EXP/ BLAST:	2778
94	SQ. FT. PER HOLE:	61.9	AVG TONS / BLAST:	2370
95	TONS PER FOOT:	3.46		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	1	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	MSCHIST/PERIDOTITE	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.35	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	1	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	150.0	DIST. TO ORE PASS:	180
56	WIDTH - DESIGN:	14.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	85.0
58	DIP:	69	SCOOP #2:	2.0
59	TONS - BLASTED:	6990	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	7020	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	29
62			TONS/DAY:	242
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	35
69	HW - AVG FT	0	Pillar width:	25
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	3195	Heigth:	10
73	TONS BY SANDFILL:	6559		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	4.8		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	15660
82	NO. - FULL LENGTH:	12	lbs. AQUAMEX:	15510
83	NO. - BLIND	10	lbs. AMEX:	150
84	TOTAL NUMBER:	22	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2460	NO. OF BLASTS:	58.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	29.0
87	FTGE. REDRILL:	1586	NO. SLASH BLASTS:	29.0
88	# SHIFTS DRILLING:	81.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	30.4	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.4	BLAST TYPE:	CRATER / SLASH
91	SPACING:	8.0	DAYS BLASTING:	34
92	X-AREA @ B'THRU:	807	POWDR FCTR lb/TON	2.23
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	270
94	SQ. FT. PER HOLE:	67.3	AVG TONS / BLAST:	121
95	TONS PER FOOT:	2.85		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3401	ZONE:	2SH
4	STOPE:	231	GRADE:	3.84
5	BLOCK:	1	TONNAGE FACTOR:	9.11
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.1	1.0	6.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	3401	
51		STOPE:	231	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	93.0	DIST. TO ORE PASS:	253
56	WIDTH - DESIGN:	19.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	95.0	SCOOP #1 PERCENT:	N/A
58	DIP:	74	SCOOP #2:	N/A
59	TONS - BLASTED:	12856	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	9889	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	37
62			TONS/DAY:	267
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	25
69	HW - AVG FT	4	Pillar width:	25
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	FW
71	FOOTWALL - AVG FT	3	Width:	10
72	ACT. TONS SANDFILL:	6152	Heigth:	10
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	7.2		
75	S - BACK - NO SAND:	2.4		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	7.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	13558
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	5528
83	NO. - BLIND	N/A	lbs. AMEX:	8030
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2688	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	1919	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	29.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	92.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	4.2	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1140	POWD FCTR lb\TON	1.37
93	NO. HOLES B'THRU:	30	AVG. lbs EXP/ BLAST:	798
94	SQ. FT. PER HOLE:	38.0	AVG TONS / BLAST:	582
95	TONS PER FOOT:	3.68		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3401	ZONE:	N
4	STOPE:	850	GRADE:	3.25
5	BLOCK:	1	TONNAGE FACTOR:	9.35
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	MASSIVE SULPHIDE	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50				
51		LEVEL:	3401	
52		STOPE:	850	
53		BLOCK:	1	
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	93.0	DIST. TO ORE PASS:	402
56	WIDTH - DESIGN:	15.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	59.0	SCOOP #1 PERCENT:	N/A
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED:	6591	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	6005	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	34
62			TONS/DAY:	177
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	5	Piller width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1	Width:	N/A
72	ACT. TONS SANDFILL:	4672	Heigth:	N/A
73	TONS BY SANDFILL:	9494		
74	S - SAND - HW:	5.5		
75	S - BACK - NO SAND:	1.8		
76	S-BACK-SAND	1.8		
77	S - FW - SAND:	5.5		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	12843
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	3438
83	NO. - BLIND	N/A	lbs. AMEX:	9405
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1109	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	262	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	8.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	138.6	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	4.4	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	2.14
93	NO. HOLES B'THRU:	25	AVG. lbs EXP/ BLAST:	856
94	SQ. FT. PER HOLE:	40.0	AVG TONS / BLAST:	400
95	TONS PER FOOT:	5.41		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	1A
4	STOPE:	26	GRADE:	1.40
5	BLOCK:	1	TONNAGE FACTOR:	9.38
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	3601	
52		STOPE:	26	
53		BLOCK:	1	
54	**BLOCK SPECS**			
55	HEIGHT - DESIGN:	257.0	**MUCKING**	
56	WIDTH - DESIGN:	18.0	DIST. TO ORE PASS:	222
57	LENGTH - DESIGN:	96.0	SCOOP #1:	2.0
58	DIP:	60	SCOOP #1 PERCENT:	N/A
59	TONS - BLASTED:	33452	SCOOP #2:	N/A
60	TONS - REMOVED:	16226	SCOOP #2 PERCENT:	N/A
61			TOTAL DAYS MUCKED:	N/A
62			ACT. DAYS MUCKING:	62
63			TONS/DAY:	262
64				
65	**SLOUGH**			
66	BACK - TYPE	Stable	DEVELOPMENT	
67	BACK - AVG FT	0	VBM TYPE:	TRANSVERSE
68	HW - TYPE	Slough	FOR Transverse VBM:	
69	HW - AVG FT	8	Length:	25
70	FOOTWALL - TYPE	Stable	Pillar width:	25
71	FOOTWALL - AVG FT	0	Hw or Fw:	FW
72	ACT. TONS SANDFILL:	16651	Width:	10
73	TONS BY SANDFILL:	33728	Heigth:	10
74	S - SAND - HW:	10.7		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	2.3		
77	S - FW - SAND:	10.7		
78				
79				
80	**DRILLING**			
81	HOLE SIZE:	4.5	**BLASTING**	
82	NO. - FULL LENGTH:	N/A	TOTAL EXPLOSIVE:	24421
83	NO. - BLIND	N/A	lbs. AQUAMEX:	24421
84	TOTAL NUMBER:	N/A	lbs. AMEX:	0
85	TOTAL FOOTAGE:	11900	lbs. OTHER:	0
86	CLEANING FOOTAGE:	1945	NO. OF BLASTS:	33.0
87	FTGE. REDRILL:	0	NO. CRATER BLASTS:	16.0
88	# SHIFTS DRILLING:	136.0	NO. SLASH BLASTS:	17.0
89	AVG. FTGE. / SHIFT:	87.5	AVG. CHG. WT:	32.0
90	CALC. BURDEN:	N/A	AVG. STANDOFF:	4.0
91	SPACING:	6.0	BLAST TYPE:	CRATER /SLASH
92	X-AREA @ B'THRU:	N/A	DAYS BLASTING:	N/A
93	NO. HOLES B'THRU:	N/A	POWD FCTR lb\TON	1.51
94	SQ. FT. PER HOLE:	N/A	AVG. lbs EXP/ BLAST:	740
95	TONS PER FOOT:	1.36	AVG TONS / BLAST:	492
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	1A
4	STOPE:	26	GRADE:	2.18
5	BLOCK:	2	TONNAGE FACTOR:	9.07
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	3601	
51		STOPE:	26	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	199.0	DIST. TO ORE PASS:	275
56	WIDTH - DESIGN:	16.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	74.0	SCOOP #1 PERCENT:	N/A
58	DIP:	60	SCOOP #2:	N/A
59	TONS - BLASTED:	24665	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	21571	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	100
62			TONS/DAY:	216
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	60
69	HW - AVG FT	10	Pillar width:	20
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	FW
71	FOOTWALL - AVG FT	2	Width:	11
72	ACT. TONS SANDFILL:	8906	Heigth:	9
73	TONS BY SANDFILL:	18656		
74	S - SAND - HW:	8.2		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	NA		
77	S - FW - SAND:	8.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	23388
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	23388
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	8649	NO. OF BLASTS:	26.0
86	CLEANING FOOTAGE:	1799	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	13.0
88	# SHIFTS DRILLING:	115.0	AVG. CHG. WT:	18.0
89	AVG. FTGE. / SHIFT:	75.2	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	N/A	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	N/A	POWD FCTR lb\TON	1.08
93	NO. HOLES B'THRU:	N/A	AVG. lbs EXP/ BLAST:	900
94	SQ. FT. PER HOLE:	N/A	AVG TONS / BLAST:	830
95	TONS PER FOOT:	2.49		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	2SH
4	STOPE:	231	GRADE:	3.38
5	BLOCK:	1	TONNAGE FACTOR:	9.33
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	7.4	1.0	7.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	3601	
51		STOPE:	231	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	67.0	DIST. TO ORE PASS:	100
56	WIDTH - DESIGN:	17.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	100.0
58	DIP:	85	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7590	TOTAL DAYS MUCKED:	51
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	253
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	35
69	HW - AVG FT	2.5	Pillar width:	35
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	FW
71	FOOTWALL - AVG FT	2	Width:	10
72	ACT. TONS SANDFILL:	5810	Heigth:	10
73	TONS BY SANDFILL:	11832		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	2.0		
76	S-BACK-SAND	2.0		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	6340
82	NO. - FULL LENGTH:	17	lbs. AQUAMEX:	6340
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	17	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5452	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	5479	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	71.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	76.8	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	3.8	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	390	POWD FCTR lb\TON	0.84
93	NO. HOLES B'THRU:	17	AVG. lbs EXP/ BLAST:	528
94	SQ. FT. PER HOLE:	22.9	AVG TONS / BLAST:	633
95	TONS PER FOOT:	1.39		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	2SH
4	STOPE:	231	GRADE:	2.92
5	BLOCK:	2	TONNAGE FACTOR:	9.42
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	3601	
51		STOPE:	231	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	69.0	DIST. TO ORE PASS:	189
56	WIDTH - DESIGN:	35.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	62.0	SCOOP #1 PERCENT:	100.0
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	16922	TOTAL DAYS MUCKED:	52
61			ACT. DAYS MUCKING:	45
62			TONS/DAY:	376
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Geological	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0.6	Width:	10
72	ACT. TONS SANDFILL:	8906	Heigth:	10
73	TONS BY SANDFILL:	17963		
74	S - SAND - HW:	5.0		
75	S - BACK - NO SAND:	3.0		
76	S-BACK-SAND	3.4		
77	S - FW - SAND:	5.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	12185
82	NO. - FULL LENGTH:	14	lbs. AQUAMEX:	12185
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	14	lbs. OTHER:	0
85	TOTAL FOOTAGE:	7414	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	2491	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	68.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	109.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	4.4	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	368	POWD FCTR lb\TON	0.72
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	1219
94	SQ. FT. PER HOLE:	26.3	AVG TONS / BLAST:	1692
95	TONS PER FOOT:	2.28		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	2SH
4	STOPE:	231	GRADE:	2.67
5	BLOCK:	4	TONNAGE FACTOR:	9.60
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	7.4	1.0	7.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	3601	
52		STOPE:	231	
53		BLOCK:	4	
54	**BLOCK SPECS**			
55	HEIGHT - DESIGN:	71.0	**MUCKING**	
56	WIDTH - DESIGN:	13.0	DIST. TO ORE PASS:	75
57	LENGTH - DESIGN:	55.0	SCOOP #1:	2.0
58	DIP:	85	SCOOP #1 PERCENT:	100.0
59	TONS - BLASTED:	N/A	SCOOP #2:	N/A
60	TONS - REMOVED:	5632	SCOOP #2 PERCENT:	N/A
61			TOTAL DAYS MUCKED:	60
62			ACT. DAYS MUCKING:	20
63			TONS/DAY:	282
64				
65	**SLOUGH**			
66	BACK - TYPE	Stable	DEVELOPMENT	
67	BACK - AVG FT	0	VBM TYPE:	RETREAT
68	HW - TYPE	Stable	FOR Transverse VBM:	
69	HW - AVG FT	0	Length:	N/A
70	FOOTWALL - TYPE	Stable	Pillar width:	N/A
71	FOOTWALL - AVG FT	0	Hw or Fw:	N/A
72	ACT. TONS SANDFILL:	2964	Width:	N/A
73	TONS BY SANDFILL:	5866	Heigth:	N/A
74	S - SAND - HW:	4.7		
75	S - BACK - NO SAND:	1.9		
76	S-BACK-SAND	1.6		
77	S - FW - SAND:	4.7		
78				
79				
80	**DRILLING**			
81	HOLE SIZE:	4.5	**BLASTING**	
82	NO. - FULL LENGTH:	N/A	TOTAL EXPLOSIVE:	5244
83	NO. - BLIND	N/A	lbs. AQUAMEX:	5244
84	TOTAL NUMBER:	N/A	lbs. AMEX:	0
85	TOTAL FOOTAGE:	2523	lbs. OTHER:	0
86	CLEANING FOOTAGE:	4511	NO. OF BLASTS:	16.0
87	FTGE. REDRILL:	0	NO. CRATER BLASTS:	12.0
88	# SHIFTS DRILLING:	0.0	NO. SLASH BLASTS:	4.0
89	AVG. FTGE. / SHIFT:	NA	AVG. CHG. WT:	16.0
90	CALC. BURDEN:	4.6	AVG. STANDOFF:	4.0
91	SPACING:	6.0	BLAST TYPE:	CRATER /SLASH 1
92	X-AREA @ B'THRU:	195	DAYS BLASTING:	N/A
93	NO. HOLES B'THRU:	7	POWD FCTR lb\TON	0.93
94	SQ. FT. PER HOLE:	27.9	AVG. lbs EXP/ BLAST:	328
95	TONS PER FOOT:	2.23	AVG TONS / BLAST:	352
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	3601	ZONE:	2SH
4	STOPE:	231	GRADE:	2.79
5	BLOCK:	5	TONNAGE FACTOR:	9.50
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	PEGMATITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	7.4	1.0	7.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	3601	
51		STOPE:	231	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	70.0	DIST. TO ORE PASS:	364
56	WIDTH - DESIGN:	15.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	78.0	SCOOP #1 PERCENT:	100.0
58	DIP:	85	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7401	TOTAL DAYS MUCKED:	111
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	247
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	40
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	10
72	ACT. TONS SANDFILL:	6140	Heigth:	10
73	TONS BY SANDFILL:	12280		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	1.9		
76	S-BACK-SAND	1.9		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	6567
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	6567
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5181	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	7864	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	4.5	BLAST TYPE:	CRATER /SLASH
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	300	POWD FCTR lb\TON	0.89
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	328
94	SQ. FT. PER HOLE:	27.3	AVG TONS / BLAST:	370
95	TONS PER FOOT:	1.43		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	2	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.35	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	200.0	DIST. TO ORE PASS:	230
56	WIDTH - DESIGN:	28.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	30.0	SCOOP #1 PERCENT:	85.0
58	DIP:	70	SCOOP #2:	2.0
59	TONS - BLASTED:	15924	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	18334	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	58
62			TONS/DAY:	316
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRASNSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	40
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	10000	Heigth:	10
73	TONS BY SANDFILL:	20528		
74	S - SAND - HW:	4.0		
75	S - BACK - NO SAND:	2.6		
76	S-BACK-SAND	2.2		
77	S - FW - SAND:	4.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11238
82	NO. - FULL LENGTH:	8	lbs. AQUAMEX:	11238
83	NO. - BLIND	10	lbs. AMEX:	0
84	TOTAL NUMBER:	18	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2392	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	10.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.8	BLAST TYPE:	CRATER / SLASH
91	SPACING:	8.0	DAYS BLASTING:	41
92	X-AREA @ B'THRU:	693	POWD FCTR lb\TON	0.61
93	NO. HOLES B'THRU:	8	AVG. lbs EXP/ BLAST:	562
94	SQ. FT. PER HOLE:	86.6	AVG TONS / BLAST:	917
95	TONS PER FOOT:	7.66		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.93
5	BLOCK:	2	TONNAGE FACTOR:	8.90
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	132.0	DIST. TO ORE PASS:	125
56	WIDTH - DESIGN:	11.3	SCOOP #1:	3.5
57	LENGTH - DESIGN:	52.0	SCOOP #1 PERCENT:	100.0
58	DIP:	64	SCOOP #2:	N/A
59	TONS - BLASTED:	7945	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7393	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	17
62			TONS/DAY:	435
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	2662	Heigth:	N/A
73	TONS BY SANDFILL:	5683		
74	S - SAND - HW:	5.7		
75	S - BACK - NO SAND:	2.0		
76	S-BACK-SAND	1.4		
77	S - FW - SAND:	5.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	7945
82	NO. - FULL LENGTH:	35	lbs. AQUAMEX:	7945
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	35	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3175	NO. OF BLASTS:	30.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	26.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	4.0
88	# SHIFTS DRILLING:	24.0	AVG. CHG. WT:	29.2
89	AVG. FTGE. / SHIFT:	132.3	AVG. STANDOFF:	3.4
90	CALC. BURDEN:	3.1	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	431	POWD FCTR lb\TON	1.07
93	NO. HOLES B'THRU:	35	AVG. lbs EXP/ BLAST:	265
94	SQ. FT. PER HOLE:	12.3	AVG TONS / BLAST:	246
95	TONS PER FOOT:	2.33		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	3	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.35	0.5
42	C:	6.0	1.0	6.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	190.0	DIST. TO ORE PASS:	260
56	WIDTH - DESIGN:	20.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	30.0	SCOOP #1 PERCENT:	85.0
58	DIP:	73	SCOOP #2:	2.0
59	TONS - BLASTED	11442	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	12510	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	45
62			TONS/DAY:	278
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	40
69	HW - AVG FT	0	Pillar width:	17
70	FOOTWALL - TYPE	Geological	Hw or Fw:	HW
71	FOOTWALL - AVG FT	1	Width:	11
72	ACT. TONS SANDFILL:	5235	Heigth:	10
73	TONS BY SANDFILL:	10746		
74	S - SAND - HW:	3.9		
75	S - BACK - NO SAND:	1.8		
76	S-BACK-SAND	1.8		
77	S - FW - SAND:	3.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	16085
82	NO. - FULL LENGTH:	17	lbs. AQUAMEX:	16085
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	17	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3715	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	20.0
87	FTGE. REDRILL:	555	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	106.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	35.0	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.0	BLAST TYPE:	CRATER
91	SPACING:	4.5	DAYS BLASTING:	35
92	X-AREA @ B'THRU:	690	POWD FCTR lb\TON	1.29
93	NO. HOLES B'THRU:	17	AVG. lbs EXP/ BLAST:	804
94	SQ. FT. PER HOLE:	40.6	AVG TONS / BLAST:	626
95	TONS PER FOOT:	3.37		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.24
5	BLOCK:	4	TONNAGE FACTOR:	9.35
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.35	0.5
42	C:	6.0	1.0	6.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	290
56	WIDTH - DESIGN:	18.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	30.0	SCOOP #1 PERCENT:	85.0
58	DIP:	73	SCOOP #2:	2.0
59	TONS - BLASTED	8080	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	8785	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	58
62			TONS/DAY:	151
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	55
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	1795	Heigth:	10
73	TONS BY SANDFILL:	3648		
74	S - SAND - HW:	3.9		
75	S - BACK - NO SAND:	2.9		
76	S-BACK-SAND	1.7		
77	S - FW - SAND:	3.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	16614
82	NO. - FULL LENGTH:	11	lbs. AQUAMEX:	16614
83	NO. - BLIND	2	lbs. AMEX:	0
84	TOTAL NUMBER:	13	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3018	NO. OF BLASTS:	38.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	19.0
87	FTGE. REDRILL:	128	NO. SLASH BLASTS:	19.0
88	# SHIFTS DRILLING:	33.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	91.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.6	BLAST TYPE:	CRATER \ SLASH 2
91	SPACING:	6.0	DAYS BLASTING:	41
92	X-AREA @ B'THRU:	700	POWD FCTR lb\TON	1.89
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	437
94	SQ. FT. PER HOLE:	63.6	AVG TONS / BLAST:	231
95	TONS PER FOOT:	2.91		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	5	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	MSCHIST
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.4	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	190.0	DIST. TO ORE PASS:	315
56	WIDTH - DESIGN:	25.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	85.0
58	DIP:	75	SCOOP #2:	2.0
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	21060	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	48
62			TONS/DAY:	439
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	40
69	HW - AVG FT	3.5	Pillar width:	25
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	8960	Heigth:	10
73	TONS BY SANDFILL:	18393		
74	S - SAND - HW:	5.0		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.3		
77	S - FW - SAND:	5.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	18267
82	NO. - FULL LENGTH:	14	lbs. AQUAMEX:	18267
83	NO. - BLIND	21	lbs. AMEX:	0
84	TOTAL NUMBER:	35	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6463	NO. OF BLASTS:	26.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	26.0
87	FTGE. REDRILL:	290	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	50.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	129.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.4	BLAST TYPE:	CRATER
91	SPACING:	8.0	DAYS BLASTING:	42
92	X-AREA @ B'THRU:	720	POWD FCTR lb\TON	0.87
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	703
94	SQ. FT. PER HOLE:	51.4	AVG TONS / BLAST:	810
95	TONS PER FOOT:	3.26		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	6	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	360
56	WIDTH - DESIGN:	28.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	38.0	SCOOP #1 PERCENT:	85.0
58	DIP:	75	SCOOP #2:	2.0
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	18403	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	53
62			TONS/DAY:	347
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	60
69	HW - AVG FT	0	Pillar width:	22
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	9594	Heigth:	10
73	TONS BY SANDFILL:	19694		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	3.0		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	20735
82	NO. - FULL LENGTH:	13	lbs. AQUAMEX:	20735
83	NO. - BLIND	29	lbs. AMEX:	0
84	TOTAL NUMBER:	42	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4929	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	10.0
88	# SHIFTS DRILLING:	43.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	114.6	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.5	BLAST TYPE:	CRATER \ SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	28
92	X-AREA @ B'THRU:	760	POWD FCTR lb\TON	1.13
93	NO. HOLES B'THRU:	13	AVG. lbs EXP/ BLAST:	1037
94	SQ. FT. PER HOLE:	58.5	AVG TONS / BLAST:	920
95	TONS PER FOOT:	3.73		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.95
5	BLOCK:	7	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	405
56	WIDTH - DESIGN:	35.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	62.0	SCOOP #1 PERCENT:	100.0
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	50611	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	96
62			TONS/DAY:	527
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	15	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	40
69	HW - AVG FT	2.5	Pillar width:	16
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	27318	Heigth:	10
73	TONS BY SANDFILL:	56078		
74	S - SAND - HW:	7.1		
75	S - BACK - NO SAND:	3.4		
76	S-BACK-SAND	3.4		
77	S - FW - SAND:	7.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	41665
82	NO. - FULL LENGTH:	16	lbs. AQUAMEX:	41665
83	NO. - BLIND	65	lbs. AMEX:	0
84	TOTAL NUMBER:	81	lbs. OTHER:	0
85	TOTAL FOOTAGE:	10510	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	7152	NO. SLASH BLASTS:	10.0
88	# SHIFTS DRILLING:	88.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	119.4	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	7.6	BLAST TYPE:	CRATER \ SLASH 1&2
91	SPACING:	9.0	DAYS BLASTING:	35
92	X-AREA @ B'THRU:	1098	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	16	AVG. lbs EXP/ BLAST:	2083
94	SQ. FT. PER HOLE:	68.6	AVG TONS / BLAST:	2531
95	TONS PER FOOT:	4.82		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.08
5	BLOCK:	8	TONNAGE FACTOR:	9.55
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	MSCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	1401	
52		STOPE:	3 SW	
53		BLOCK:	8	
54	**BLOCK SPECS**			
55	HEIGHT - DESIGN:	185.0	**MUCKING**	
56	WIDTH - DESIGN:	60.0	DIST. TO ORE PASS:	445
57	LENGTH - DESIGN:	40.0	SCOOP #1:	3.5
58	DIP:	71	SCOOP #1 PERCENT:	85.0
59	TONS - BLASTED	N/A	SCOOP #2:	2.0
60	TONS - REMOVED:	58564	SCOOP #2 PERCENT:	15.0
61			TOTAL DAYS MUCKED:	N/A
62			ACT. DAYS MUCKING:	148
63			TONS/DAY:	396
64				
65	**SLOUGH**			
66	BACK - TYPE	Slough	**DEVELOPMENT**	
67	BACK - AVG FT	40	VBM TYPE:	TRANSVERSE
68	HW - TYPE	Slough	FOR Transverse VBM:	
69	HW - AVG FT	9	Length:	35
70	FOOTWALL - TYPE	Slough	Pillar width:	25
71	FOOTWALL - AVG FT	5	Hw or Fw:	HW
72	ACT. TONS SANDFILL:	8069	Width:	11
73	TONS BY SANDFILL:	N/A	Heigth:	10
74	S - SAND - HW:	5.0		
75	S - BACK - NO SAND:	4.0		
76	S-BACK-SAND	3.7		
77	S - FW - SAND:	5.0		
78				
79				
80	**DRILLING**			
81	HOLE SIZE:	6.5	**BLASTING**	
82	NO. - FULL LENGTH:	11	TOTAL EXPLOSIVE:	24310
83	NO. - BLIND	52	lbs. AQUAMEX:	0
84	TOTAL NUMBER:	63	lbs. AMEX:	0
85	TOTAL FOOTAGE:	9849	lbs. OTHER:	24310
86	CLEANING FOOTAGE:	N/A	NO. OF BLASTS:	19.0
87	FTGE. REDRILL:	6949	NO. CRATER BLASTS:	10.0
88	# SHIFTS DRILLING:	N/A	NO. SLASH BLASTS:	9.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. CHG. WT:	55.0
90	CALC. BURDEN:	6.0	AVG. STANDOFF:	5.0
91	SPACING:	9.0	BLAST TYPE:	CRATER \ SLASH 2
92	X-AREA @ B'THRU:	593	DAYS BLASTING:	53
93	NO. HOLES B'THRU:	11	POWD FCTR lb\TON	0.42
94	SQ. FT. PER HOLE:	53.9	AVG. lbs EXP/ BLAST:	1279
95	TONS PER FOOT:	5.95	AVG TONS / BLAST:	3082

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	803	ZONE:	1C
4	STOPE:	340	GRADE:	2.85
5	BLOCK:	2	TONNAGE FACTOR:	10.53
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	6.0	6.0	6.0
14	Jr:	1.5	1.5	1.5
15	Q:	14.2	11.3	14.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP	48	48	48
36	J SET #5 AZIMUTH	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.5	1.0
41	B:	0.5	0.4	0.5
42	C:	3.1	1.0	3.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	803	
51		STOPE:	340	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	170.0	DIST. TO ORE PASS:	275
56	WIDTH - DESIGN:	19.7	SCOOP #1:	2.0
57	LENGTH - DESIGN:	51.0	SCOOP #1 PERCENT:	100.0
58	DIP:	45	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	12553	TOTAL DAYS MUCKED:	36
61			ACT. DAYS MUCKING:	36
62			TONS/DAY:	349
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	1.6	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6611	Heigth:	N/A
73	TONS BY SANDFILL:	11929		
74	S - SAND - HW:	6.0		
75	S - BACK - NO SAND:	2.0		
76	S-BACK-SAND	2.2		
77	S - FW - SAND:	6.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	16146
82	NO. - FULL LENGTH:	22	lbs. AQUAMEX:	16146
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	22	lbs. OTHER:	0
85	TOTAL FOOTAGE:	7851	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	0.0
87	FTGE. REDRILL:	84	NO. SLASH BLASTS:	10.0
88	# SHIFTS DRILLING:	50.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	157.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.8	BLAST TYPE:	slash
91	SPACING:	4.0	DAYS BLASTING:	10
92	X-AREA @ B'THRU:	792	POWD FCTR lb\TON	1.29
93	NO. HOLES B'THRU:	22	AVG. lbs EXP/ BLAST:	1615
94	SQ. FT. PER HOLE:	36.0	AVG TONS / BLAST:	1255
95	TONS PER FOOT:	1.60		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.43
5	BLOCK:	9	TONNAGE FACTOR:	9.25
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	9	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	200.0	DIST. TO ORE PASS:	560
56	WIDTH - DESIGN:	50.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	45.0	SCOOP #1 PERCENT:	85.0
58	DIP:	65	SCOOP #2:	2.0
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	51344	TOTAL DAYS MUCKED:	134
61			ACT. DAYS MUCKING:	134
62			TONS/DAY:	383
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	30
69	HW - AVG FT	2	Pillar width:	40
70	FOOTWALL - TYPE	Slough	Hw or Fw:	HW
71	FOOTWALL - AVG FT	1.25	Width:	11
72	ACT. TONS SANDFILL:	26402	Heigth:	10
73	TONS BY SANDFILL:	54231		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	3.6		
76	S-BACK-SAND	3.6		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	37461
82	NO. - FULL LENGTH:	14	lbs. AQUAMEX:	22111
83	NO. - BLIND	53	lbs. AMEX:	15350
84	TOTAL NUMBER:	67	lbs. OTHER:	0
85	TOTAL FOOTAGE:	11282	NO. OF BLASTS:	26.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	8411	NO. SLASH BLASTS:	13.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.9	BLAST TYPE:	CRATER \ SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	225
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	0.73
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	1441
94	SQ. FT. PER HOLE:	71.4	AVG TONS / BLAST:	1975
95	TONS PER FOOT:	4.55		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1401	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	1.89
5	BLOCK:	10	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	85	84	85
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.0	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	7.0	1.0	7.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	1401	
51		STOPE:	3 SH	
52		BLOCK:	10	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	175.0	DIST. TO ORE PASS:	620
56	WIDTH - DESIGN:	35.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	50.0	SCOOP #1 PERCENT:	85.0
58	DIP:	82	SCOOP #2:	2.0
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	15.0
60	TONS - REMOVED:	21880	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	38
62			TONS/DAY:	576
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	70
69	HW - AVG FT	0	Pillar width:	40
70	FOOTWALL - TYPE	Slough	Hw or Fw:	HW
71	FOOTWALL - AVG FT	1.9	Width:	11
72	ACT. TONS SANDFILL:	12639	Heigth:	10
73	TONS BY SANDFILL:	24885		
74	S - SAND - HW:	5.9		
75	S - BACK - NO SAND:	4.7		
76	S-BACK-SAND	3.1		
77	S - FW - SAND:	5.9		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21150
82	NO. - FULL LENGTH:	12	lbs. AQUAMEX:	20215
83	NO. - BLIND	30	lbs. AMEX:	935
84	TOTAL NUMBER:	42	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4491	NO. OF BLASTS:	22.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	11.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	11.7	BLAST TYPE:	CRATER \ SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	39
92	X-AREA @ B'THRU:	1120	POWD FCTR lb\TON	0.97
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	961
94	SQ. FT. PER HOLE:	93.3	AVG TONS / BLAST:	995
95	TONS PER FOOT:	4.87		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	2	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	4.4	1.0	4.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	92.0	DIST. TO ORE PASS:	460
56	WIDTH - DESIGN:	10.6	SCOOP #1:	2.0
57	LENGTH - DESIGN:	44.0	SCOOP #1 PERCENT:	100.0
58	DIP:	59	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	5198	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	18
62			TONS/DAY:	289
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	5.3	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	2983	Heigth:	N/A
73	TONS BY SANDFILL:	6123		
74	S - SAND - HW:	4.5		
75	S - BACK - NO SAND:	1.3		
76	S-BACK-SAND	1.3		
77	S - FW - SAND:	4.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	4264
82	NO. - FULL LENGTH:	22	lbs. AQUAMEX:	4264
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	22	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1889	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	17.0	AVG. CHG. WT:	27.0
89	AVG. FTGE. / SHIFT:	111.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.0	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	10
92	X-AREA @ B'THRU:	616	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	22	AVG. lbs EXP/ BLAST:	426
94	SQ. FT. PER HOLE:	28.0	AVG TONS / BLAST:	520
95	TONS PER FOOT:	2.75		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	3	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	89.0	DIST. TO ORE PASS:	270
56	WIDTH - DESIGN:	11.5	SCOOP #1:	2.0
57	LENGTH - DESIGN:	54.0	SCOOP #1 PERCENT:	100.0
58	DIP:	64	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	4640	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	17
62			TONS/DAY:	273
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	1.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	3325	Heigth:	N/A
73	TONS BY SANDFILL:	6825		
74	S - SAND - HW:	5.1		
75	S - BACK - NO SAND:	1.4		
76	S-BACK-SAND	1.4		
77	S - FW - SAND:	5.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5792
82	NO. - FULL LENGTH:	20	lbs. AQUAMEX:	5792
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	20	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1814	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	18.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	100.8	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.7	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	11
92	X-AREA @ B'THRU:	770	POWD FCTR lb\TON	1.25
93	NO. HOLES B'THRU:	20	AVG. lbs EXP/ BLAST:	527
94	SQ. FT. PER HOLE:	38.5	AVG TONS / BLAST:	422
95	TONS PER FOOT:	2.56		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	4	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.6	1.0	4.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	89.0	DIST. TO ORE PASS:	220
56	WIDTH - DESIGN:	8.7	SCOOP #1:	2.0
57	LENGTH - DESIGN:	49.0	SCOOP #1 PERCENT:	100.0
58	DIP:	61	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	3317	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	16
62			TONS/DAY:	207
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	1978	Heigth:	N/A
73	TONS BY SANDFILL:	4060		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	1.4		
76	S-BACK-SAND	1.1		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5230
82	NO. - FULL LENGTH:	28	lbs. AQUAMEX:	5230
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	28	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2636	NO. OF BLASTS:	9.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	21.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	125.5	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.3	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	9
92	X-AREA @ B'THRU:	735	POWD FCTR lb\TON	1.58
93	NO. HOLES B'THRU:	28	AVG. lbs EXP/ BLAST:	581
94	SQ. FT. PER HOLE:	26.3	AVG TONS / BLAST:	369
95	TONS PER FOOT:	1.26		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	5	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	87.0	DIST. TO ORE PASS:	145
56	WIDTH - DESIGN:	12.5	SCOOP #1:	2.0
57	LENGTH - DESIGN:	20.0	SCOOP #1 PERCENT:	100.0
58	DIP:	64	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	1672	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	9
62			TONS/DAY:	186
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	3.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1.2	Width:	N/A
72	ACT. TONS SANDFILL:	997	Heigth:	N/A
73	TONS BY SANDFILL:	2047		
74	S - SAND - HW:	2.5		
75	S - BACK - NO SAND:	1.2		
76	S-BACK-SAND	1.2		
77	S - FW - SAND:	2.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	3933
82	NO. - FULL LENGTH:	10	lbs. AQUAMEX:	3933
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	10	lbs. OTHER:	0
85	TOTAL FOOTAGE:	847	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	11.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	77.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	6.0	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	10
92	X-AREA @ B'THRU:	300	POWD FCTR lb\TON	2.35
93	NO. HOLES B'THRU:	10	AVG. lbs EXP/ BLAST:	393
94	SQ. FT. PER HOLE:	30.0	AVG TONS / BLAST:	167
95	TONS PER FOOT:	1.97		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	6	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	AMPHIBOLITE	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	139	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	87.0	DIST. TO ORE PASS:	95
56	WIDTH - DESIGN:	8.4	SCOOP #1:	2.0
57	LENGTH - DESIGN:	30.0	SCOOP #1 PERCENT:	100.0
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	2830	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	13
62			TONS/DAY:	218
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	7.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	1687	Heigth:	N/A
73	TONS BY SANDFILL:	3463		
74	S - SAND - HW:	3.4		
75	S - BACK - NO SAND:	1.0		
76	S-BACK-SAND	1.0		
77	S - FW - SAND:	3.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	3947
82	NO. - FULL LENGTH:	13	lbs. AQUAMEX:	3947
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	13	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1137	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	12.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	94.8	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	6.9	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	10
92	X-AREA @ B'THRU:	450	POWD FCTR lb\TON	1.39
93	NO. HOLES B'THRU:	13	AVG. lbs EXP/ BLAST:	395
94	SQ. FT. PER HOLE:	34.6	AVG TONS / BLAST:	283
95	TONS PER FOOT:	2.49		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	7	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	87.0	DIST. TO ORE PASS:	40
56	WIDTH - DESIGN:	7.2	SCOOP #1:	2.0
57	LENGTH - DESIGN:	50.0	SCOOP #1 PERCENT:	100.0
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	2678	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	9
62			TONS/DAY:	298
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	1597	Heigth:	N/A
73	TONS BY SANDFILL:	3278		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	1.0		
76	S-BACK-SAND	1.0		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5138
82	NO. - FULL LENGTH:	21	lbs. AQUAMEX:	5138
83	NO. - BLIND	9	lbs. AMEX:	0
84	TOTAL NUMBER:	30	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1521	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	15.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	101.4	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.6	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	5.0	DAYS BLASTING:	11
92	X-AREA @ B'THRU:	800	POWD FCTR lb\TON	1.92
93	NO. HOLES B'THRU:	21	AVG. lbs EXP/ BLAST:	467
94	SQ. FT. PER HOLE:	38.1	AVG TONS / BLAST:	243
95	TONS PER FOOT:	1.76		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	8	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	71	71	71
32	J SET #4 AZIMUTH	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	124.0	DIST. TO ORE PASS:	484
56	WIDTH - DESIGN:	11.8	SCOOP #1:	2.0
57	LENGTH - DESIGN:	86.0	SCOOP #1 PERCENT:	100.0
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	16484	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	49
62			TONS/DAY:	336
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	10	Pillar width:	N/A
70	FOOTWALL - TYPE	Geological	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	4	Width:	N/A
72	ACT. TONS SANDFILL:	6882	Heigth:	N/A
73	TONS BY SANDFILL:	14127		
74	S - SAND - HW:	7.7		
75	S - BACK - NO SAND:	1.6		
76	S-BACK-SAND	1.6		
77	S - FW - SAND:	7.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	13653
82	NO. - FULL LENGTH:	24	lbs. AQUAMEX:	13653
83	NO. - BLIND	27	lbs. AMEX:	0
84	TOTAL NUMBER:	51	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4261	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	16.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	41.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	103.9	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.7	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	5.0	DAYS BLASTING:	17
92	X-AREA @ B'THRU:	600	POWD FCTR lb\TON	0.83
93	NO. HOLES B'THRU:	21	AVG. lbs EXP/ BLAST:	803
94	SQ. FT. PER HOLE:	28.6	AVG TONS / BLAST:	970
95	TONS PER FOOT:	3.87		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	803	ZONE:	1C
4	STOPE:	340	GRADE:	4.25
5	BLOCK:	3	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	6.0	6.0	6.0
14	Jr:	1.5	1.5	1.5
15	Q:	14.2	11.3	14.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP	48	48	48
36	J SET #5 AZIMUTH	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.5	1.0
41	B:	0.5	0.4	0.5
42	C:	3.1	1.0	3.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	803	
51		STOPE:	340	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	160.0	DIST. TO ORE PASS:	220
56	WIDTH - DESIGN:	24.7	SCOOP #1:	2.0
57	LENGTH - DESIGN:	48.0	SCOOP #1 PERCENT:	100.0
58	DIP:	45	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	16429	TOTAL DAYS MUCKED:	35
61			ACT. DAYS MUCKING:	35
62			TONS/DAY:	469
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	2	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	9012	Heigth:	N/A
73	TONS BY SANDFILL:	17744		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	2.5		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	25497
82	NO. - FULL LENGTH:	17	lbs. AQUAMEX:	25497
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	17	lbs. OTHER:	0
85	TOTAL FOOTAGE:	7371	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	18.0
87	FTGE. REDRILL:	748	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	72.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	135.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.0	BLAST TYPE:	crater
91	SPACING:	4.0	DAYS BLASTING:	19
92	X-AREA @ B'THRU:	544	POWD FCTR lb\TON	1.55
93	NO. HOLES B'THRU:	17	AVG. lbs EXP/ BLAST:	1342
94	SQ. FT. PER HOLE:	32.0	AVG TONS / BLAST:	865
95	TONS PER FOOT:	2.23		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	9	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	9	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	125.0	DIST. TO ORE PASS:	410
56	WIDTH - DESIGN:	10.3	SCOOP #1:	2.0
57	LENGTH - DESIGN:	58.0	SCOOP #1 PERCENT:	100.0
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	8005	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	267
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	2.4	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	4342	Heigth:	N/A
73	TONS BY SANDFILL:	8913		
74	S - SAND - HW:	6.0		
75	S - BACK - NO SAND:	1.6		
76	S-BACK-SAND	1.3		
77	S - FW - SAND:	6.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	8505
82	NO. - FULL LENGTH:	31	lbs. AQUAMEX:	8505
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	31	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3686	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	41.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	89.9	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.6	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	15
92	X-AREA @ B'THRU:	870	POWD FCTR lb\TON	1.06
93	NO. HOLES B'THRU:	31	AVG. lbs EXP/ BLAST:	567
94	SQ. FT. PER HOLE:	28.1	AVG TONS / BLAST:	534
95	TONS PER FOOT:	2.17		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	10	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	10	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	97.0	DIST. TO ORE PASS:	285
56	WIDTH - DESIGN:	10.1	SCOOP #1:	2.0
57	LENGTH - DESIGN:	94.0	SCOOP #1 PERCENT:	100.0
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	8835	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	26
62			TONS/DAY:	340
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	3	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	4503	Heigth:	N/A
73	TONS BY SANDFILL:	9244		
74	S - SAND - HW:	7.3		
75	S - BACK - NO SAND:	1.4		
76	S-BACK-SAND	1.4		
77	S - FW - SAND:	7.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	7227
82	NO. - FULL LENGTH:	48	lbs. AQUAMEX:	7227
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	48	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3555	NO. OF BLASTS:	9.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	29.0	AVG. CHG. WT:	21.0
89	AVG. FTGE. / SHIFT:	122.6	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	6.3	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	9
92	X-AREA @ B'THRU:	1504	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	48	AVG. lbs EXP/ BLAST:	803
94	SQ. FT. PER HOLE:	31.3	AVG TONS / BLAST:	982
95	TONS PER FOOT:	2.49		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	11	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	11	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	93.0	DIST. TO ORE PASS:	180
56	WIDTH - DESIGN:	10.1	SCOOP #1:	2.0
57	LENGTH - DESIGN:	81.0	SCOOP #1 PERCENT:	100.0
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	3831	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	18
62			TONS/DAY:	213
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5197	Heigth:	N/A
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	6.6		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	7596
82	NO. - FULL LENGTH:	15	lbs. AQUAMEX:	7596
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	15	lbs. OTHER:	0
85	TOTAL FOOTAGE:	993	NO. OF BLASTS:	5.0
86	CLEANING FOOTAGE:	1000	NO. CRATER BLASTS:	5.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	12.0	AVG. CHG. WT:	81.0
89	AVG. FTGE. / SHIFT:	82.8	AVG. STANDOFF:	2.0
90	CALC. BURDEN:	10.1	BLAST TYPE:	CRATER
91	SPACING:	8.0	DAYS BLASTING:	5
92	X-AREA @ B'THRU:	1215	POWD FCTR lb\TON	1.98
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	1519
94	SQ. FT. PER HOLE:	81.0	AVG TONS / BLAST:	766
95	TONS PER FOOT:	3.86		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	95	GRADE:	2.95
5	BLOCK:	2A	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.6	1.0	4.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	95	
52		BLOCK:	2A	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	89.0	DIST. TO ORE PASS:	410
56	WIDTH - DESIGN:	10.6	SCOOP #1:	2.0
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	61	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	2715	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	10
62			TONS/DAY:	272
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	1946	Heigth:	N/A
73	TONS BY SANDFILL:	3995		
74	S - SAND - HW:	4.2		
75	S - BACK - NO SAND:	1.4		
76	S-BACK-SAND	1.3		
77	S - FW - SAND:	4.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	3621
82	NO. - FULL LENGTH:	20	lbs. AQUAMEX:	3621
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	20	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1658	NO. OF BLASTS:	9.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	16.0	AVG. CHG. WT:	27.0
89	AVG. FTGE. / SHIFT:	103.6	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.0	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	9
92	X-AREA @ B'THRU:	560	POWD FCTR lb\TON	1.33
93	NO. HOLES B'THRU:	20	AVG. lbs EXP/ BLAST:	402
94	SQ. FT. PER HOLE:	28.0	AVG TONS / BLAST:	302
95	TONS PER FOOT:	1.64		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	4.22
5	BLOCK:	1	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	260
56	WIDTH - DESIGN:	14.5	SCOOP #1:	2.0
57	LENGTH - DESIGN:	88.0	SCOOP #1 PERCENT:	100.0
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	15497	TOTAL DAYS MUCKED:	57
61			ACT. DAYS MUCKING:	57
62			TONS/DAY:	272
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	1.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5075	Heigth:	N/A
73	TONS BY SANDFILL:	9992		
74	S - SAND - HW:	8.0		
75	S - BACK - NO SAND:	1.9		
76	S-BACK-SAND	1.9		
77	S - FW - SAND:	8.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	10956
82	NO. - FULL LENGTH:	46	lbs. AQUAMEX:	10956
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	46	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3357	NO. OF BLASTS:	22.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	17.0
87	FTGE. REDRILL:	957	NO. SLASH BLASTS:	5.0
88	# SHIFTS DRILLING:	27.0	AVG. CHG. WT:	47.4
89	AVG. FTGE. / SHIFT:	124.0	AVG. STANDOFF:	3.0
90	CALC. BURDEN:	3.6	BLAST TYPE:	CRATER/SLASH
91	SPACING:	4.0	DAYS BLASTING:	22
92	X-AREA @ B'THRU:	658	POWD FCTR lb\TON	0.71
93	NO. HOLES B'THRU:	46	AVG. lbs EXP/ BLAST:	498
94	SQ. FT. PER HOLE:	14.3	AVG TONS / BLAST:	704
95	TONS PER FOOT:	4.62		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	1.90
5	BLOCK:	3	TONNAGE FACTOR:	9.99
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	4.8	1.0	4.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	143.0	DIST. TO ORE PASS:	385
56	WIDTH - DESIGN:	14.8	SCOOP #1:	3.5
57	LENGTH - DESIGN:	48.0	SCOOP #1 PERCENT:	100.0
58	DIP:	63	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10258	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	21
62			TONS/DAY:	488
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5924	Heigth:	N/A
73	TONS BY SANDFILL:	11265		
74	S - SAND - HW:	5.5		
75	S - BACK - NO SAND:	1.7		
76	S-BACK-SAND	1.7		
77	S - FW - SAND:	5.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	7736
82	NO. - FULL LENGTH:	33	lbs. AQUAMEX:	7736
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	33	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3681	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	18.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	32.0	AVG. CHG. WT:	22.4
89	AVG. FTGE. / SHIFT:	115.0	AVG. STANDOFF:	4.7
90	CALC. BURDEN:	3.4	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	446	POWD FCTR lb\TON	0.75
93	NO. HOLES B'THRU:	33	AVG. lbs EXP/ BLAST:	407
94	SQ. FT. PER HOLE:	13.5	AVG TONS / BLAST:	540
95	TONS PER FOOT:	2.79		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.40
5	BLOCK:	4	TONNAGE FACTOR:	9.19
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.8	1.0	4.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	1403	
52		STOPE:	301	
53		BLOCK:	4	
54	**BLOCK SPECS**			
55	HEIGHT - DESIGN:	134.0	**MUCKING**	
56	WIDTH - DESIGN:	11.5	DIST. TO ORE PASS:	125
57	LENGTH - DESIGN:	48.0	SCOOP #1:	3.5
58	DIP:	63	SCOOP #1 PERCENT:	100.0
59	TONS - BLASTED:	6164	SCOOP #2:	N/A
60	TONS - REMOVED:	5809	SCOOP #2 PERCENT:	N/A
61			TOTAL DAYS MUCKED:	N/A
62			ACT. DAYS MUCKING:	20
63			TONS/DAY:	290
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	1.4	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	3228	Heigth:	N/A
73	TONS BY SANDFILL:	6674		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	1.4		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5612
82	NO. - FULL LENGTH:	23	lbs. AQUAMEX:	5612
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	23	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2294	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	16.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	19.0	AVG. CHG. WT:	27.6
89	AVG. FTGE. / SHIFT:	120.7	AVG. STANDOFF:	4.3
90	CALC. BURDEN:	3.2	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	4.0	DAYS BLASTING:	18
92	X-AREA @ B'THRU:	292	POWD FCTR lb\TON	0.97
93	NO. HOLES B'THRU:	23	AVG. lbs EXP/ BLAST:	295
94	SQ. FT. PER HOLE:	12.7	AVG TONS / BLAST:	306
95	TONS PER FOOT:	2.53		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	2.46
5	BLOCK:	5	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	4.8	1.0	4.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	142.0	DIST. TO ORE PASS:	332
56	WIDTH - DESIGN:	17.8	SCOOP #1:	3.5
57	LENGTH - DESIGN:	50.0	SCOOP #1 PERCENT:	100.0
58	DIP:	63	SCOOP #2:	N/A
59	TONS - BLASTED:	10638	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10488	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	31
62			TONS/DAY:	338
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	3	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5042	Heigth:	N/A
73	TONS BY SANDFILL:	9927		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	2.2		
76	S-BACK-SAND	2.0		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	6256
82	NO. - FULL LENGTH:	34	lbs. AQUAMEX:	6256
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	34	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4234	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	31.0	AVG. CHG. WT:	26.5
89	AVG. FTGE. / SHIFT:	136.6	AVG. STANDOFF:	4.1
90	CALC. BURDEN:	3.6	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	490	POWD FCTR lb\TON	0.60
93	NO. HOLES B'THRU:	34	AVG. lbs EXP/ BLAST:	368
94	SQ. FT. PER HOLE:	14.4	AVG TONS / BLAST:	617
95	TONS PER FOOT:	2.48		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.70
5	BLOCK:	6	TONNAGE FACTOR:	9.05
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	135.0	DIST. TO ORE PASS:	147
56	WIDTH - DESIGN:	13.1	SCOOP #1:	3.5
57	LENGTH - DESIGN:	50.0	SCOOP #1 PERCENT:	100.0
58	DIP:	65	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10883	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	23
62			TONS/DAY:	473
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5010	Heigth:	N/A
73	TONS BY SANDFILL:	10518		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	1.6		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5766
82	NO. - FULL LENGTH:	24	lbs. AQUAMEX:	5766
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	24	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3280	NO. OF BLASTS:	16.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	15.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	22.0	AVG. CHG. WT:	21.7
89	AVG. FTGE. / SHIFT:	149.1	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	2.9	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	348	POWD FCTR lb\TON	0.53
93	NO. HOLES B'THRU:	24	AVG. lbs EXP/ BLAST:	360
94	SQ. FT. PER HOLE:	14.5	AVG TONS / BLAST:	680
95	TONS PER FOOT:	3.32		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.61
5	BLOCK:	7	TONNAGE FACTOR:	9.09
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.4	1.0	5.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	132.0	DIST. TO ORE PASS:	280
56	WIDTH - DESIGN:	20.5	SCOOP #1:	3.5
57	LENGTH - DESIGN:	64.0	SCOOP #1 PERCENT:	100.0
58	DIP:	68	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	14590	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	24
62			TONS/DAY:	608
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	5.2	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	7387	Heigth:	N/A
73	TONS BY SANDFILL:	15440		
74	S - SAND - HW:	6.6		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	6.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	7244
82	NO. - FULL LENGTH:	37	lbs. AQUAMEX:	7244
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	37	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4427	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	4.0
88	# SHIFTS DRILLING:	43.0	AVG. CHG. WT:	29.6
89	AVG. FTGE. / SHIFT:	103.0	AVG. STANDOFF:	4.7
90	CALC. BURDEN:	4.8	BLAST TYPE:	CRATER/SLASH2
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	895	POWD FCTR lb\TON	0.50
93	NO. HOLES B'THRU:	37	AVG. lbs EXP/ BLAST:	517
94	SQ. FT. PER HOLE:	24.2	AVG TONS / BLAST:	1042
95	TONS PER FOOT:	3.30		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	803	ZONE:	1C
4	STOPE:	340	GRADE:	3.26
5	BLOCK:	4	TONNAGE FACTOR:	10.25
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	6.0	6.0	6.0
14	Jr:	1.5	1.5	1.5
15	Q:	14.2	11.3	14.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP	48	48	48
36	J SET #5 AZIMUTH	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.5	1.0
41	B:	0.5	0.4	0.5
42	C:	3.1	1.0	3.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	803	
51		STOPE:	340	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	170.0	DIST. TO ORE PASS:	165
56	WIDTH - DESIGN:	31.7	SCOOP #1:	2.0
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	100.0
58	DIP:	45	SCOOP #2:	N/A
59	TONS - BLASTED	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	24525	TOTAL DAYS MUCKED:	52
61			ACT. DAYS MUCKING:	52
62			TONS/DAY:	472
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	12124	Heigth:	N/A
73	TONS BY SANDFILL:	22474		
74	S - SAND - HW:	6.8		
75	S - BACK - NO SAND:	2.9		
76	S-BACK-SAND	3.2		
77	S - FW - SAND:	6.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	21601
82	NO. - FULL LENGTH:	46	lbs. AQUAMEX:	21601
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	46	lbs. OTHER:	0
85	TOTAL FOOTAGE:	12249	NO. OF BLASTS:	26.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	25.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	110.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	111.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	7.3	BLAST TYPE:	crater
91	SPACING:	4.0	DAYS BLASTING:	25
92	X-AREA @ B'THRU:	2024	POWD FCTR lb\TON	0.88
93	NO. HOLES B'THRU:	46	AVG. lbs EXP/ BLAST:	831
94	SQ. FT. PER HOLE:	44.0	AVG TONS / BLAST:	943
95	TONS PER FOOT:	2.00		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.81
5	BLOCK:	8	TONNAGE FACTOR:	8.89
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	133.0	DIST. TO ORE PASS:	272
56	WIDTH - DESIGN:	16.8	SCOOP #1:	3.5
57	LENGTH - DESIGN:	48.0	SCOOP #1 PERCENT:	100.0
58	DIP:	60	SCOOP #2:	N/A
59	TONS - BLASTED:	10801	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10951	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	22
62			TONS/DAY:	498
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	4329	Heigth:	N/A
73	TONS BY SANDFILL:	9252		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	1.9		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	9004
82	NO. - FULL LENGTH:	61	lbs. AQUAMEX:	9004
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	61	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5184	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	39.0	AVG. CHG. WT:	31.5
89	AVG. FTGE. / SHIFT:	132.9	AVG. STANDOFF:	4.5
90	CALC. BURDEN:	3.3	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	61	AVG. lbs EXP/ BLAST:	643
94	SQ. FT. PER HOLE:	16.4	AVG TONS / BLAST:	782
95	TONS PER FOOT:	2.11		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	1.52
5	BLOCK:	9	TONNAGE FACTOR:	10.22
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.4	1.0	5.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	9	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	138.0	DIST. TO ORE PASS:	210
56	WIDTH - DESIGN:	18.7	SCOOP #1:	3.5
57	LENGTH - DESIGN:	59.0	SCOOP #1 PERCENT:	100.0
58	DIP:	68	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	6948	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	14
62			TONS/DAY:	496
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	6.2	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0.7	Width:	N/A
72	ACT. TONS SANDFILL:	3459	Heigth:	N/A
73	TONS BY SANDFILL:	6431		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.2		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	8660
82	NO. - FULL LENGTH:	32	lbs. AQUAMEX:	8660
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	32	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3635	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	36.0	AVG. CHG. WT:	29.6
89	AVG. FTGE. / SHIFT:	101.0	AVG. STANDOFF:	3.6
90	CALC. BURDEN:	3.8	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	614	POWD FCTR lb\TON	1.25
93	NO. HOLES B'THRU:	32	AVG. lbs EXP/ BLAST:	577
94	SQ. FT. PER HOLE:	19.2	AVG TONS / BLAST:	463
95	TONS PER FOOT:	1.91		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.95
5	BLOCK:	10	TONNAGE FACTOR:	8.98
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.7	1.0	4.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	10	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	215
56	WIDTH - DESIGN:	19.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	51.0	SCOOP #1 PERCENT:	100.0
58	DIP:	62	SCOOP #2:	N/A
59	TONS - BLASTED:	10837	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10462	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	19
62			TONS/DAY:	551
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	8	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6597	Heigth:	N/A
73	TONS BY SANDFILL:	13958		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	6215
82	NO. - FULL LENGTH:	30	lbs. AQUAMEX:	6215
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	30	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3373	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	23.0	AVG. CHG. WT:	28.3
89	AVG. FTGE. / SHIFT:	146.7	AVG. STANDOFF:	4.1
90	CALC. BURDEN:	3.9	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	591	POWD FCTR lb\TON	0.59
93	NO. HOLES B'THRU:	30	AVG. lbs EXP/ BLAST:	478
94	SQ. FT. PER HOLE:	19.7	AVG TONS / BLAST:	805
95	TONS PER FOOT:	3.10		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	1.70
5	BLOCK:	11	TONNAGE FACTOR:	10.05
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.3	1.0
41	B:	0.5	0.4	0.5
42	C:	5.8	1.0	5.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	11	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	145.0	DIST. TO ORE PASS:	485
56	WIDTH - DESIGN:	18.7	SCOOP #1:	2.0
57	LENGTH - DESIGN:	95.0	SCOOP #1 PERCENT:	50.0
58	DIP:	72	SCOOP #2:	3.5
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	50.0
60	TONS - REMOVED:	19140	TOTAL DAYS MUCKED:	47
61			ACT. DAYS MUCKING:	47
62			TONS/DAY:	407
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	5	Pillar width:	N/A
70	FOOTWALL - TYPE	Slough	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	5	Width:	N/A
72	ACT. TONS SANDFILL:	13970	Heigth:	N/A
73	TONS BY SANDFILL:	26411		
74	S - SAND - HW:	8.7		
75	S - BACK - NO SAND:	1.9		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	8.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	N/A
82	NO. - FULL LENGTH:	80	lbs. AQUAMEX:	N/A
83	NO. - BLIND	0	lbs. AMEX:	N/A
84	TOTAL NUMBER:	80	lbs. OTHER:	N/A
85	TOTAL FOOTAGE:	8506	NO. OF BLASTS:	N/A
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	N/A
87	FTGE. REDRILL:	388	NO. SLASH BLASTS:	N/A
88	# SHIFTS DRILLING:	72.0	AVG. CHG. WT:	N/A
89	AVG. FTGE. / SHIFT:	118.1	AVG. STANDOFF:	N/A
90	CALC. BURDEN:	3.9	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1560	POWD FCTR lb\TON	N/A
93	NO. HOLES B'THRU:	80	AVG. lbs EXP/ BLAST:	N/A
94	SQ. FT. PER HOLE:	19.5	AVG TONS / BLAST:	N/A
95	TONS PER FOOT:	2		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	3.58
5	BLOCK:	12	TONNAGE FACTOR:	9.09
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	12	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	140
56	WIDTH - DESIGN:	22.3	SCOOP #1:	3.5
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	65	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7465	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	11
62			TONS/DAY:	679
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	40
69	HW - AVG FT	0	Pillar width:	30
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	3888	Heigth:	11
73	TONS BY SANDFILL:	8127		
74	S - SAND - HW:	4.7		
75	S - BACK - NO SAND:	2.4		
76	S-BACK-SAND	2.2		
77	S - FW - SAND:	4.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5796
82	NO. - FULL LENGTH:	34	lbs. AQUAMEX:	5796
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	34	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1777	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	12.0	AVG. CHG. WT:	24.3
89	AVG. FTGE. / SHIFT:	148.1	AVG. STANDOFF:	3.8
90	CALC. BURDEN:	5.3	BLAST TYPE:	CRATER
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1078	POWD FCTR lb\TON	0.78
93	NO. HOLES B'THRU:	34	AVG. lbs EXP/ BLAST:	446
94	SQ. FT. PER HOLE:	31.7	AVG TONS / BLAST:	574
95	TONS PER FOOT:	4.20		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	2.13
5	BLOCK:	13	TONNAGE FACTOR:	9.76
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	13	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	138.0	DIST. TO ORE PASS:	150
56	WIDTH - DESIGN:	24.4	SCOOP #1:	3.5
57	LENGTH - DESIGN:	44.0	SCOOP #1 PERCENT:	100.0
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	13322	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	29
62			TONS/DAY:	459
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	6.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6749	Heigth:	N/A
73	TONS BY SANDFILL:	13138		
74	S - SAND - HW:	5.1		
75	S - BACK - NO SAND:	2.3		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	5.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	10548
82	NO. - FULL LENGTH:	26	lbs. AQUAMEX:	10548
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	26	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3357	NO. OF BLASTS:	23.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	22.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	32.0	AVG. CHG. WT:	N/A
89	AVG. FTGE. / SHIFT:	104.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	4.3	BLAST TYPE:	CRATER
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	668	POWD FCTR lb\TON	0.79
93	NO. HOLES B'THRU:	26	AVG. lbs EXP/ BLAST:	459
94	SQ. FT. PER HOLE:	25.7	AVG TONS / BLAST:	579
95	TONS PER FOOT:	3.97		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	301	GRADE:	2.56
5	BLOCK:	14	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	96	96	96
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.7	10.7	10.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	100	100	100
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	10	10	10
24	J SET #2 AZIMUTH:	235	235	235
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	80	80	80
28	J SET #3 AZIMUTH:	180	180	180
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	71	71	71
32	J SET #4 AZIMUTH:	225	225	225
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	301	
52		BLOCK:	14	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	137.0	DIST. TO ORE PASS:	190
56	WIDTH - DESIGN:	18.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	55.0	SCOOP #1 PERCENT:	100.0
58	DIP:	64	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11660	TOTAL DAYS MUCKED:	29
61			ACT. DAYS MUCKING:	29
62			TONS/DAY:	402
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	4	Pillar width:	N/A
70	FOOTWALL - TYPE	Geological	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1.8	Width:	N/A
72	ACT. TONS SANDFILL:	6048	Heigth:	N/A
73	TONS BY SANDFILL:	11908		
74	S - SAND - HW:	6.0		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	9501
82	NO. - FULL LENGTH:	28	lbs. AQUAMEX:	9501
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	28	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4569	NO. OF BLASTS:	21.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	18.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	3.0
88	# SHIFTS DRILLING:	40.0	AVG. CHG. WT:	27.0
89	AVG. FTGE. / SHIFT:	114.2	AVG. STANDOFF:	3.0
90	CALC. BURDEN:	5.0	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	834	POWD FCTR lb\TON	0.81
93	NO. HOLES B'THRU:	28	AVG. lbs EXP/ BLAST:	452
94	SQ. FT. PER HOLE:	29.8	AVG TONS / BLAST:	555
95	TONS PER FOOT:	2.55		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	330	GRADE:	1.96
5	BLOCK:	1	TONNAGE FACTOR:	9.99
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.4	1.0	5.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	330	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	104.0	DIST. TO ORE PASS:	260
56	WIDTH - DESIGN:	16.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	85.0	SCOOP #1 PERCENT:	100.0
58	DIP:	68	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	15313	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	45
62			TONS/DAY:	340
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	N/A	Length:	N/A
69	HW - AVG FT	N/A	Pillar width:	N/A
70	FOOTWALL - TYPE	N/A	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	N/A	Width:	N/A
72	ACT. TONS SANDFILL:	8059	Heigth:	N/A
73	TONS BY SANDFILL:	15327		
74	S - SAND - HW:	7.1		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	7.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	12000
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	11000
83	NO. - BLIND	N/A	lbs. AMEX:	1000
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	8165	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	9.0
88	# SHIFTS DRILLING:	100.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	81.7	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	8.6	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1634	POWD FCTR lb\TON	0.78
93	NO. HOLES B'THRU:	38	AVG. lbs EXP/ BLAST:	706
94	SQ. FT. PER HOLE:	43.0	AVG TONS / BLAST:	901
95	TONS PER FOOT:	1.88		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	330	GRADE:	1.57
5	BLOCK:	2	TONNAGE FACTOR:	10.22
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	330	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	107.0	DIST. TO ORE PASS:	190
56	WIDTH - DESIGN:	19.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	100.0
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	9736	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	32
62			TONS/DAY:	304
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0.3	Width:	N/A
72	ACT. TONS SANDFILL:	5124	Heigth:	N/A
73	TONS BY SANDFILL:	9526		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	2.4		
76	S-BACK-SAND	2.3		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	9625
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	9625
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5526	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	54.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	102.3	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	8.2	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1078	POWD FCTR lb\TON	0.99
93	NO. HOLES B'THRU:	22	AVG. lbs EXP/ BLAST:	566
94	SQ. FT. PER HOLE:	49.0	AVG TONS / BLAST:	573
95	TONS PER FOOT:	1.76		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	330	GRADE:	3.20
5	BLOCK:	3	TONNAGE FACTOR:	9.25
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	330	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	107.0	DIST. TO ORE PASS:	117
56	WIDTH - DESIGN:	19.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	100.0
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	9289	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	28
62			TONS/DAY:	332
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	N/A	Length:	N/A
69	HW - AVG FT	N/A	Pillar width:	N/A
70	FOOTWALL - TYPE	N/A	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	N/A	Width:	N/A
72	ACT. TONS SANDFILL:	6791	Heigth:	N/A
73	TONS BY SANDFILL:	13949		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	2.9		
76	S-BACK-SAND	2.3		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	9800
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	8800
83	NO. - BLIND	N/A	lbs. AMEX:	1000
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3190	NO. OF BLASTS:	27.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	14.0
88	# SHIFTS DRILLING:	29.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	110.0	AVG. STANDOFF:	4.0
90	CALC. BURDEN:	5.4	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	6.5	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	455	POWD FCTR lb\TON	1.06
93	NO. HOLES B'THRU:	13	AVG. lbs EXP/ BLAST:	363
94	SQ. FT. PER HOLE:	35.0	AVG TONS / BLAST:	344
95	TONS PER FOOT:	2.91		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1001	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.20
5	BLOCK:	1	TONNAGE FACTOR:	9.35
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	89	89	89
10	THMP RQD - CORE:	59	51	40
11	Corrected Thmp RQD:	90	87	82
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.0	7.3	9.1
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	MSCHIST/PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.35	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	1001	
51		STOPE:	3 SH	
52		BLOCK:	1	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	170.0	DIST. TO ORE PASS:	530
56	WIDTH - DESIGN:	20.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	70.0	SCOOP #1 PERCENT:	100.0
58	DIP:	65	SCOOP #2:	N/A
59	TONS - BLASTED:	16400	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	41012	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	N/A
62			TONS/DAY:	N/A
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	12.5	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	45
69	HW - AVG FT	0	Pillar width:	45
70	FOOTWALL - TYPE	Slough	Hw or Fw:	HW
71	FOOTWALL - AVG FT	15	Width:	12
72	ACT. TONS SANDFILL:	15314	Heigth:	9
73	TONS BY SANDFILL:	31119		
74	S - SAND - HW:	7.6		
75	S - BACK - NO SAND:	2.4		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	7.6		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	20782
82	NO. - FULL LENGTH:	16	lbs. AQUAMEX:	8142
83	NO. - BLIND	13	lbs. AMEX:	12640
84	TOTAL NUMBER:	29	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4896	NO. OF BLASTS:	24.0
86	CLEANING FOOTAGE:	648	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	12.0
88	# SHIFTS DRILLING:	43.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	113.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.9	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	8.0	DAYS BLASTING:	44
92	X-AREA @ B'THRU:	330	POWD FCTR lb\TON	0.51
93	NO. HOLES B'THRU:	6	AVG. lbs EXP/ BLAST:	866
94	SQ. FT. PER HOLE:	55.0	AVG TONS / BLAST:	1709
95	TONS PER FOOT:	8.38		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1403	ZONE:	1C
4	STOPE:	330	GRADE:	2.49
5	BLOCK:	4	TONNAGE FACTOR:	9.65
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.2	1.0
41	B:	0.5	0.4	0.5
42	C:	5.4	1.0	5.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1403	
51		STOPE:	330	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	105.0	DIST. TO ORE PASS:	93
56	WIDTH - DESIGN:	21.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	75.0	SCOOP #1 PERCENT:	100.0
58	DIP:	68	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10044	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	20
62			TONS/DAY:	502
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	0.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	7357	Heigth:	N/A
73	TONS BY SANDFILL:	14485		
74	S - SAND - HW:	6.7		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	6.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	N/A
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	N/A
83	NO. - BLIND	N/A	lbs. AMEX:	N/A
84	TOTAL NUMBER:	N/A	lbs. OTHER:	N/A
85	TOTAL FOOTAGE:	3743	NO. OF BLASTS:	N/A
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	N/A
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	N/A
88	# SHIFTS DRILLING:	33.0	AVG. CHG. WT:	16.0
89	AVG. FTGE. / SHIFT:	113.4	AVG. STANDOFF:	N/A
90	CALC. BURDEN:	10.2	BLAST TYPE:	SLASH
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1224	POWD FCTR lb\TON	N/A
93	NO. HOLES B'THRU:	24	AVG. lbs EXP/ BLAST:	N/A
94	SQ. FT. PER HOLE:	51.0	AVG TONS / BLAST:	N/A
95	TONS PER FOOT:	2.68		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1603	ZONE:	1C
4	STOPE:	340	GRADE:	2.98
5	BLOCK:	1	TONNAGE FACTOR:	10.45
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.4	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1603	
51		STOPE:	340	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	360
56	WIDTH - DESIGN:	12.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	69.0	SCOOP #1 PERCENT:	100.0
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED:	10075	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	8575	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	26
62			TONS/DAY:	330
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	3.8	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5480	Heigth:	N/A
73	TONS BY SANDFILL:	9964		
74	S - SAND - HW:	6.9		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	16170
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	16170
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4284	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	97	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	23.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	186.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.3	BLAST TYPE:	CRATER
91	SPACING:	6.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	874	POWD FCTR lb\TON	1.89
93	NO. HOLES B'THRU:	23	AVG. lbs EXP/ BLAST:	1348
94	SQ. FT. PER HOLE:	38.0	AVG TONS / BLAST:	715
95	TONS PER FOOT:	2.00		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1603	ZONE:	1C
4	STOPE:	340	GRADE:	4.96
5	BLOCK:	2	TONNAGE FACTOR:	9.30
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.4	0.5
42	C:	5.2	1.0	5.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1603	
51		STOPE:	340	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	129.0	DIST. TO ORE PASS:	260
56	WIDTH - DESIGN:	16.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	50.0	SCOOP #1 PERCENT:	100.0
58	DIP:	66	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7645	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	16
62			TONS/DAY:	478
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	5090	Heigth:	N/A
73	TONS BY SANDFILL:	10399		
74	S - SAND - HW:	5.5		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	7605
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	7605
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3761	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	312	NO. CRATER BLASTS:	0.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	12.0
88	# SHIFTS DRILLING:	26.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	144.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	12.9	BLAST TYPE:	SLASH
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1450	POWD FCTR lb\TON	0.99
93	NO. HOLES B'THRU:	28	AVG. lbs EXP/ BLAST:	634
94	SQ. FT. PER HOLE:	51.8	AVG TONS / BLAST:	637
95	TONS PER FOOT:	2.03		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1603	ZONE:	1C
4	STOPE:	340	GRADE:	2.90
5	BLOCK:	3	TONNAGE FACTOR:	10.53
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.4	0.5
42	C:	4.6	1.0	4.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1603	
51		STOPE:	340	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	133.0	DIST. TO ORE PASS:	210
56	WIDTH - DESIGN:	14.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	55.0	SCOOP #1 PERCENT:	100.0
58	DIP:	61	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	8290	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	18
62			TONS/DAY:	461
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	3.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	4539	Heigth:	N/A
73	TONS BY SANDFILL:	8190		
74	S - SAND - HW:	5.9		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	10685
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	10685
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4480	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	38.0	AVG. CHG. WT:	N/A
89	AVG. FTGE. / SHIFT:	117.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.5	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	918	POWD FCTR lb\TON	1.29
93	NO. HOLES B'THRU:	27	AVG. lbs EXP/ BLAST:	763
94	SQ. FT. PER HOLE:	34.0	AVG TONS / BLAST:	592
95	TONS PER FOOT:	1.85		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1603	ZONE:	1C
4	STOPE:	340	GRADE:	2.97
5	BLOCK:	4	TONNAGE FACTOR:	10.46
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.4	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1603	
51		STOPE:	340	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	110
56	WIDTH - DESIGN:	26.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	100.0
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	18008	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	48
62			TONS/DAY:	375
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	8419	Heigth:	N/A
73	TONS BY SANDFILL:	15298		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	12039
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	12039
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	9159	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	7.0
88	# SHIFTS DRILLING:	56.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	163.6	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.6	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2256	POWD FCTR lb\TON	0.67
93	NO. HOLES B'THRU:	47	AVG. lbs EXP/ BLAST:	860
94	SQ. FT. PER HOLE:	48.0	AVG TONS / BLAST:	1286
95	TONS PER FOOT:	1.97		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1603	ZONE:	1C
4	STOPE:	340	GRADE:	3.02
5	BLOCK:	5	TONNAGE FACTOR:	10.45
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.4	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1603	
51		STOPE:	340	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	113.0	DIST. TO ORE PASS:	415
56	WIDTH - DESIGN:	12.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	100.0
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	7052	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	22
62			TONS/DAY:	321
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	4079	Heigth:	N/A
73	TONS BY SANDFILL:	7416		
74	S - SAND - HW:	6.4		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	8796
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	8796
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4049	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	360	NO. SLASH BLASTS:	6.0
88	# SHIFTS DRILLING:	24.0	AVG. CHG. WT:	22.5
89	AVG. FTGE. / SHIFT:	168.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.2	BLAST TYPE:	CRATER /SLASH
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	988	POWD FCTR lb\TON	1.25
93	NO. HOLES B'THRU:	38	AVG. lbs EXP/ BLAST:	677
94	SQ. FT. PER HOLE:	26.0	AVG TONS / BLAST:	542
95	TONS PER FOOT:	1.74		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	315	GRADE:	2.89
5	BLOCK:	8	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	IRON FORMATION
17	UCS OF ROCK:	66	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.0	1.0	6.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	315	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	160.0	DIST. TO ORE PASS:	405
56	WIDTH - DESIGN:	40.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	57.0	SCOOP #1 PERCENT:	100.0
58	DIP:	73	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	27790	TOTAL DAYS MUCKED:	53
61			ACT. DAYS MUCKING:	36
62			TONS/DAY:	772
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	4	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	55
69	HW - AVG FT	8	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	18365	Heigth:	10
73	TONS BY SANDFILL:	37541		
74	S - SAND - HW:	6.4		
75	S - BACK - NO SAND:	3.6		
76	S-BACK-SAND	3.6		
77				
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	26153
82	NO. - FULL LENGTH:	7	lbs. AQUAMEX:	26153
83	NO. - BLIND	56	lbs. AMEX:	0
84	TOTAL NUMBER:	63	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5990	NO. OF BLASTS:	16.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	15.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	40.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	149.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.8	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	527	POWD FCTR lb\TON	0.94
93	NO. HOLES B'THRU:	7	AVG. lbs EXP/ BLAST:	1635
94	SQ. FT. PER HOLE:	75.3	AVG TONS / BLAST:	1737
95	TONS PER FOOT:	4.64		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	315	GRADE:	2.89
5	BLOCK:	1HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	1803	
51		STOPE:	315	
52		BLOCK:	1HW	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	165.0	DIST. TO ORE PASS:	500
56	WIDTH - DESIGN:	27.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	48.0	SCOOP #1 PERCENT:	100.0
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	15365	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	24824	TOTAL DAYS MUCKED:	49
61			ACT. DAYS MUCKING:	33
62			TONS/DAY:	752
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	85
69	HW - AVG FT	0	Pillar width:	35
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	6860	Heigth:	11
73	TONS BY SANDFILL:	14023		
74	S - SAND - HW:	5.7		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.7		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	13908
82	NO. - FULL LENGTH:	7	lbs. AQUAMEX:	11908
83	NO. - BLIND	28	lbs. AMEX:	2000
84	TOTAL NUMBER:	35	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6311	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	126	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	42.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	150.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.4	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	510	POWD FCTR lb\TON	0.56
93	NO. HOLES B'THRU:	7	AVG. lbs EXP/ BLAST:	1070
94	SQ. FT. PER HOLE:	72.9	AVG TONS / BLAST:	1910
95	TONS PER FOOT:	3.93		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	315	GRADE:	2.89
5	BLOCK:	2HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	315	
52		BLOCK:	2HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	150.0	DIST. TO ORE PASS:	450
56	WIDTH - DESIGN:	25.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	54.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	16820	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	18779	TOTAL DAYS MUCKED:	94
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	469
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	5.3	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	85
69	HW - AVG FT	0	Pillar width:	35
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	13000	Heigth:	11
73	TONS BY SANDFILL:	26574		
74	S - SAND - HW:	6.1		
75	S - BACK - NO SAND:	2.6		
76	S-BACK-SAND	2.6		
77	S - FW - SAND:	6.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	17505
82	NO. - FULL LENGTH:	23	lbs. AQUAMEX:	10641
83	NO. - BLIND	18	lbs. AMEX:	6864
84	TOTAL NUMBER:	41	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4596	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	16.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	30.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	153.2	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.5	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1537	POWD FCTR lb\TON	0.93
93	NO. HOLES B'THRU:	23	AVG. lbs EXP/ BLAST:	1030
94	SQ. FT. PER HOLE:	66.8	AVG TONS / BLAST:	1105
95	TONS PER FOOT:	4.09		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	315	GRADE:	2.89
5	BLOCK:	3HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	315	
52		BLOCK:	3HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	140.0	DIST. TO ORE PASS:	400
56	WIDTH - DESIGN:	38.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	47.0	SCOOP #1 PERCENT:	N/A
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	23085	TOTAL DAYS MUCKED:	55
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	770
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	70
69	HW - AVG FT	0	Pillar width:	40
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	9677	Heigth:	10
73	TONS BY SANDFILL:	19781		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	3.2		
76	S-BACK-SAND	3.2		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	24696
82	NO. - FULL LENGTH:	15	lbs. AQUAMEX:	24696
83	NO. - BLIND	60	lbs. AMEX:	0
84	TOTAL NUMBER:	75	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6982	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	1638	NO. SLASH BLASTS:	6.0
88	# SHIFTS DRILLING:	52.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	134.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	11.7	BLAST TYPE:	CRATER \ SLASH 2
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	700	POWD FCTR lb\TON	1.07
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	1900
94	SQ. FT. PER HOLE:	46.7	AVG TONS / BLAST:	1776
95	TONS PER FOOT:	3.31		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.00
5	BLOCK:	6	TONNAGE FACTOR:	9.55
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	89	89	89
10	THMP RQD - CORE:	40	41	46
11	Corrected Thmp RQD:	82	82	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.1	6.8	9.4
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.4	1.0
41	B:	0.5	0.35	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1201	
51		STOPE:	3 SH	
52		BLOCK:	6	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	190.0	DIST. TO ORE PASS:	250
56	WIDTH - DESIGN:	45.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	45.0	SCOOP #1 PERCENT:	N/A
58	DIP:	75	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	18420	TOTAL DAYS MUCKED:	119
61			ACT. DAYS MUCKING:	65
62			TONS/DAY:	283
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	2.5	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	30
69	HW - AVG FT	8	Pillar width:	15
70	FOOTWALL - TYPE	Slough	Hw or Fw:	HW
71	FOOTWALL - AVG FT	1.7	Width:	10
72	ACT. TONS SANDFILL:	35098	Heigth:	10
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	5.5		
75	S - BACK - NO SAND:	3.9		
76	S-BACK-SAND	3.4		
77	S - FW - SAND:	5.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	24008
82	NO. - FULL LENGTH:	13	lbs. AQUAMEX:	19030
83	NO. - BLIND	49	lbs. AMEX:	4978
84	TOTAL NUMBER:	62	lbs. OTHER:	0
85	TOTAL FOOTAGE:	8979	NO. OF BLASTS:	23.0
86	CLEANING FOOTAGE:	7262	NO. CRATER BLASTS:	23.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	71.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	126.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.7	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	81
92	X-AREA @ B'THRU:	1050	POWD FCTR lb\TON	1.30
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	1044
94	SQ. FT. PER HOLE:	87.5	AVG TONS / BLAST:	801
95	TONS PER FOOT:	2.05		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	315	GRADE:	2.89
5	BLOCK:	5&6HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	MASSIVE SULPHIDE	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	315	
52		BLOCK:	5&6HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	100.0	DIST. TO ORE PASS:	N/A
56	WIDTH - DESIGN:	55.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	115.0	SCOOP #1 PERCENT:	N/A
58	DIP:	65	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	57020	TOTAL DAYS MUCKED:	247
61			ACT. DAYS MUCKING:	106
62			TONS/DAY:	538
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	60
69	HW - AVG FT	6.4	Pillar width:	45
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	32846	Heigth:	10
73	TONS BY SANDFILL:	67142		
74	S - SAND - HW:	8.2		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	8.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	46945
82	NO. - FULL LENGTH:	5	lbs. AQUAMEX:	46945
83	NO. - BLIND	122	lbs. AMEX:	0
84	TOTAL NUMBER:	127	lbs. OTHER:	0
85	TOTAL FOOTAGE:	17593	NO. OF BLASTS:	18.0
86	CLEANING FOOTAGE:	1292	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	9.0
88	# SHIFTS DRILLING:	124.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	141.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.8	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	396	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	5	AVG. lbs EXP/ BLAST:	2608
94	SQ. FT. PER HOLE:	79.2	AVG TONS / BLAST:	3168
95	TONS PER FOOT:	3.24		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	319	GRADE:	3.33
5	BLOCK:	7	TONNAGE FACTOR:	9.25
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.3	1.0	5.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	319	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	175.0	DIST. TO ORE PASS:	295
56	WIDTH - DESIGN:	89.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	38.0	SCOOP #1 PERCENT:	100.0
58	DIP:	67	SCOOP #2:	N/A
59	TONS - BLASTED:	51294	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	50229	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	42
62			TONS/DAY:	1196
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW / HW
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	18633	Heigth:	N/A
73	TONS BY SANDFILL:	38273		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	40700
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	40700
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	10116	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	3568	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	67.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	151.0	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.4	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1122	POWD FCTR lb\TON	0.81
93	NO. HOLES B'THRU:	17	AVG. lbs EXP/ BLAST:	2713
94	SQ. FT. PER HOLE:	66.0	AVG TONS / BLAST:	3349
95	TONS PER FOOT:	4.97		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	319	GRADE:	2.89
5	BLOCK:	9	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	319	
52		BLOCK:	9	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	125.0	DIST. TO ORE PASS:	161
56	WIDTH - DESIGN:	90.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	60	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	33961	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	1132
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW / HW
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	14848	Heigth:	N/A
73	TONS BY SANDFILL:	30351		
74	S - SAND - HW:	4.6		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	4.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	22853
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	22853
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	7989	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	58.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	137.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	16.7	BLAST TYPE:	CRATER
91	SPACING:	4.5	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1050	POWD FCTR lb\TON	0.67
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	1524
94	SQ. FT. PER HOLE:	75.0	AVG TONS / BLAST:	2264
95	TONS PER FOOT:	4.25		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	319	GRADE:	1.96
5	BLOCK:	1HW	TONNAGE FACTOR:	9.92
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.8	1.0	5.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	319	
52		BLOCK:	1HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	197.0	DIST. TO ORE PASS:	NA
56	WIDTH - DESIGN:	18.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	51.0	SCOOP #1 PERCENT:	100.0
58	DIP:	72	SCOOP #2:	N/A
59	TONS - BLASTED:	12764	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	15432	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	30
62			TONS/DAY:	514
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	85
69	HW - AVG FT	6	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	8756	Heigth:	10
73	TONS BY SANDFILL:	16771		
74	S - SAND - HW:	6.2		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	6.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	16423
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	8195
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	8228
85	TOTAL FOOTAGE:	3988	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	1162	NO. CRATER BLASTS:	18.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	36.0	AVG. CHG. WT:	50.0
89	AVG. FTGE. / SHIFT:	110.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.4	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	792	POWD FCTR lb\TON	1.06
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	864
94	SQ. FT. PER HOLE:	66.0	AVG TONS / BLAST:	812
95	TONS PER FOOT:	3.87		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	319	GRADE:	2.22
5	BLOCK:	2 / 3 FW	TONNAGE FACTOR:	9.70
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	PERIDOTITE	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	66	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.4	1.0	5.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	319	
52		BLOCK:	2 / 3 FW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	178.0	DIST. TO ORE PASS:	135
56	WIDTH - DESIGN:	17.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	74.0	SCOOP #1 PERCENT:	100.0
58	DIP:	68	SCOOP #2:	N/A
59	TONS - BLASTED:	18220	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	25162	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	629
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	70
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	13235	Heigth:	10
73	TONS BY SANDFILL:	25924		
74	S - SAND - HW:	8.0		
75	S - BACK - NO SAND:	2.1		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	8.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	20625
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	20625
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4465	NO. OF BLASTS:	21.0
86	CLEANING FOOTAGE:	870	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	11.0
88	# SHIFTS DRILLING:	51.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	87.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.7	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	517	POWD FCTR lb\TON	0.82
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	982
94	SQ. FT. PER HOLE:	47.0	AVG TONS / BLAST:	1198
95	TONS PER FOOT:	5.64		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	3	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	MSCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	66	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	180.0	DIST. TO ORE PASS:	300
56	WIDTH - DESIGN:	30.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	35.0	SCOOP #1 PERCENT:	N/A
58	DIP:	60	SCOOP #2:	3.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	29585	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	46
62			TONS/DAY:	643
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	80
69	HW - AVG FT	0	Pillar width:	27
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	13788	Heigth:	11
73	TONS BY SANDFILL:	28185		
74	S - SAND - HW:	4.5		
75	S - BACK - NO SAND:	2.5		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	4.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21313
82	NO. - FULL LENGTH:	23	lbs. AQUAMEX:	21313
83	NO. - BLIND	14	lbs. AMEX:	0
84	TOTAL NUMBER:	37	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6351	NO. OF BLASTS:	23.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	22.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	14.0	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	756	POWD FCTR lb\TON	0.72
93	NO. HOLES B'THRU:	6	AVG. lbs EXP/ BLAST:	927
94	SQ. FT. PER HOLE:	126.0	AVG TONS / BLAST:	1286
95	TONS PER FOOT:	4.66		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	8	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	7.4	1.0	7.4
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	175.0	DIST. TO ORE PASS:	N/A
56	WIDTH - DESIGN:	100.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	N/A
58	DIP:	85	SCOOP #2:	N/A
59	TONS - BLASTED:	90372	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	102346	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	N/A
62			TONS/DAY:	N/A
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	5	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	65
69	HW - AVG FT	0	Pillar width:	40
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	70492	Heigth:	11
73	TONS BY SANDFILL:	144095		
74	S - SAND - HW:	5.0		
75	S - BACK - NO SAND:	8.9		
76	S-BACK-SAND	4.4		
77	S - FW - SAND:	5.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	N/A
82	NO. - FULL LENGTH:	0	lbs. AQUAMEX:	N/A
83	NO. - BLIND	0	lbs. AMEX:	N/A
84	TOTAL NUMBER:	0	lbs. OTHER:	N/A
85	TOTAL FOOTAGE:	17713	NO. OF BLASTS:	N/A
86	CLEANING FOOTAGE:	3285	NO. CRATER BLASTS:	N/A
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	N/A
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.1	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1800	POWD FCTR lb\TON	N/A
93	NO. HOLES B'THRU:	37	AVG. lbs EXP/ BLAST:	N/A
94	SQ. FT. PER HOLE:	48.6	AVG TONS / BLAST:	N/A
95	TONS PER FOOT:	5.78		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	3.82
5	BLOCK:	4&5	TONNAGE FACTOR:	8.98
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	135	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	4&5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	272
56	WIDTH - DESIGN:	45.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	67.0	SCOOP #1 PERCENT:	N/A
58	DIP:	60	SCOOP #2:	3.5
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	64225	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	48
62			TONS/DAY:	1338
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	80
69	HW - AVG FT	0	Pillar width:	40
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	42469	Heigth:	10
73	TONS BY SANDFILL:	89856		
74	S - SAND - HW:	7.5		
75	S - BACK - NO SAND:	4.2		
76	S-BACK-SAND	4.1		
77	S - FW - SAND:	7.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	52994
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	52994
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	N/A	NO. OF BLASTS:	23.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	22.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	21.5	BLAST TYPE:	CRATER
91	SPACING:	4.5	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1550	POWD FCTR lb\TON	0.83
93	NO. HOLES B'THRU:	16	AVG. lbs EXP/ BLAST:	2304
94	SQ. FT. PER HOLE:	96.9	AVG TONS / BLAST:	2792
95	TONS PER FOOT:	N/A		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	6FW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SULPHIDE MATRIX	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	72	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.1	1.0	6.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	6FW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	175.0	DIST. TO ORE PASS:	175
56	WIDTH - DESIGN:	60.0	SCOOP #1:	5 YD
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	N/A
58	DIP:	74	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	82834	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	77
62			TONS/DAY:	1076
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	60	FOR Transverse VBM:	
68	HW - TYPE	N/A	Length:	55
69	HW - AVG FT	N/A	Pillar width:	27
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	42021	Heigth:	11
73	TONS BY SANDFILL:	85897		
74	S - SAND - HW:	5.0		
75	S - BACK - NO SAND:	7.6		
76	S-BACK-SAND	3.7		
77	S - FW - SAND:	5.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	29000
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	29000
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	N/A	NO. OF BLASTS:	16.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	N/A	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	N/A	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	600	POWD FCTR lb\TON	0.35
93	NO. HOLES B'THRU:	7	AVG. lbs EXP/ BLAST:	1813
94	SQ. FT. PER HOLE:	85.7	AVG TONS / BLAST:	5177
95	TONS PER FOOT:	N/A		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	6HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	SULPHIDE MATRIX	SULPHIDE MATRIX
17	UCS OF ROCK:	70	72	72
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	6HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	170.0	DIST. TO ORE PASS:	220
56	WIDTH - DESIGN:	40.0	SCOOP #1:	J S 500
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	42051	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	1051
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	27
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	22812	Heigth:	11
73	TONS BY SANDFILL:	46631		
74	S - SAND - HW:	4.9		
75	S - BACK - NO SAND:	5.7		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	4.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	40000
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	40000
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	14545	NO. OF BLASTS:	16.0
86	CLEANING FOOTAGE:	8807	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	546	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	6.0
90	CALC. BURDEN:	8.6	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	10.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2500	POWD FCTR lb\TON	0.95
93	NO. HOLES B'THRU:	29	AVG. lbs EXP/ BLAST:	2500
94	SQ. FT. PER HOLE:	86.2	AVG TONS / BLAST:	2628
95	TONS PER FOOT:	2.89		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	1.30
5	BLOCK:	2A	TONNAGE FACTOR:	10.07
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	89	89	89
10	THMP RQD - CORE:	80	78	42
11	Corrected Thmp RQD:	97	95	83
12	Ja:	1.5	1.5	2.0
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	10.8	10.6	6.9
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.4	1.0
41	B:	0.5	0.35	0.5
42	C:	5.3	1.0	5.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1201	
51		STOPE:	3 SH	
52		BLOCK:	2A	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	178.0	DIST. TO ORE PASS:	250
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	70.0	SCOOP #1 PERCENT:	100.0
58	DIP:	67	SCOOP #2:	N/A
59	TONS - BLASTED	12880	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	N/A	TOTAL DAYS MUCKED:	130
61			ACT. DAYS MUCKING:	17
62			TONS/DAY:	N/A
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	35
69	HW - AVG FT	10	Pillar width:	22
70	FOOTWALL - TYPE	Slough	Hw or Fw:	HW
71	FOOTWALL - AVG FT	9	Width:	13
72	ACT. TONS SANDFILL:	36434	Heigth:	9
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	7.7		
75	S - BACK - NO SAND:	3.2		
76	S-BACK-SAND	3.2		
77	S - FW - SAND:	7.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14602
82	NO. - FULL LENGTH:	20	lbs. AQUAMEX:	14602
83	NO. - BLIND	2	lbs. AMEX:	0
84	TOTAL NUMBER:	22	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2980	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	15.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	17.5	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	8.0	DAYS BLASTING:	22
92	X-AREA @ B'THRU:	2800	POWD FCTR lb\TON	N/A
93	NO. HOLES B'THRU:	20	AVG. lbs EXP/ BLAST:	973
94	SQ. FT. PER HOLE:	140.0	AVG TONS / BLAST:	N/A
95	TONS PER FOOT:	N/A		

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	7FW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	MASSIVE SULPHIDE	MASSIVE SULPHIDE	SCHIST/QUARTZITE
17	UCS OF ROCK:	72	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	7FW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	130
56	WIDTH - DESIGN:	40.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	57272	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	58900	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	64
62			TONS/DAY:	920
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	N/A	Length:	60
69	HW - AVG FT	N/A	Pillar width:	40
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	23156	Heigth:	11
73	TONS BY SANDFILL:	47334		
74	S - SAND - HW:	6.9		
75	S - BACK - NO SAND:	5.2		
76	S-BACK-SAND	3.7		
77	S - FW - SAND:	6.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	44000
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	44000
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	10837	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	5082	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	10.0
88	# SHIFTS DRILLING:	98.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	110.6	AVG. STANDOFF:	6.0
90	CALC. BURDEN:	8.3	BLAST TYPE:	CRATER /SLASH ?
91	SPACING:	10.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	500	POWD FCTR lb\TON	0.75
93	NO. HOLES B'THRU:	6	AVG. lbs EXP/ BLAST:	2316
94	SQ. FT. PER HOLE:	83.3	AVG TONS / BLAST:	3100
95	TONS PER FOOT:	5.44		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	7HW	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	QUARTZITE	MASSIVE SULPHIDE	MASSIVE SULPHIDE
17	UCS OF ROCK:	135	72	72
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	330	
52		BLOCK:	7HW	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	215
56	WIDTH - DESIGN:	40.0	SCOOP #1:	J S 500
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	48300	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	51000	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	62
62			TONS/DAY:	823
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	90
69	HW - AVG FT	0	Pillar width:	27
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	24407	Heigth:	11
73	TONS BY SANDFILL:	49891		
74	S - SAND - HW:	6.9		
75	S - BACK - NO SAND:	3.7		
76	S-BACK-SAND	3.7		
77	S - FW - SAND:	6.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	41000
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	41000
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	9897	NO. OF BLASTS:	18.0
86	CLEANING FOOTAGE:	488	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	715	NO. SLASH BLASTS:	9.0
88	# SHIFTS DRILLING:	79.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	125.3	AVG. STANDOFF:	6.0
90	CALC. BURDEN:	9.5	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	10.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	3150	POWD FCTR lb\TON	0.80
93	NO. HOLES B'THRU:	33	AVG. lbs EXP/ BLAST:	2278
94	SQ. FT. PER HOLE:	95.5	AVG TONS / BLAST:	2833
95	TONS PER FOOT:	5.15		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	331	GRADE:	2.89
5	BLOCK:	1	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.1	1.0	6.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	331	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	157.0	DIST. TO ORE PASS:	660
56	WIDTH - DESIGN:	17.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	52.0	SCOOP #1 PERCENT:	N/A
58	DIP:	74	SCOOP #2:	5.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11395	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	25
62			TONS/DAY:	456
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6551	Heigth:	N/A
73	TONS BY SANDFILL:	13391		
74	S - SAND - HW:	6.0		
75	S - BACK - NO SAND:	2.0		
76	S-BACK-SAND	2.0		
77	S - FW - SAND:	6.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21636
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	21636
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4197	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	5593	NO. CRATER BLASTS:	18.0
87	FTGE. REDRILL:	290	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	42.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	99.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.7	BLAST TYPE:	CRATER
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	480	POWD FCTR lb\TON	1.90
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	1139
94	SQ. FT. PER HOLE:	40.0	AVG TONS / BLAST:	600
95	TONS PER FOOT:	2.72		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	331	GRADE:	2.89
5	BLOCK:	2	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1[illegible]	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	MINING DATA			
50		LEVEL:	1803	
51		STOPE:	331	
52		BLOCK:	2	
53				
54	BLOCK SPECS		MUCKING	
55	HEIGHT - DESIGN:	173.0	DIST. TO ORE PASS:	605
56	WIDTH - DESIGN:	28.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	55.0	SCOOP #1 PERCENT:	N/A
58	DIP:	60	SCOOP #2:	5.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	22836	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	41
62			TONS/DAY:	557
63				
64				
65	SLOUGH		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Geological	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0.5	Width:	N/A
72	ACT. TONS SANDFILL:	8707	Heigth:	N/A
73	TONS BY SANDFILL:	17798		
74	S - SAND - HW:	6.4		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	6.4		
78				
79				
80	DRILLING		BLASTING	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	27968
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	27968
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	9708	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	5230	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	158	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	91.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	106.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.6	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	7.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	737	POWD FCTR lb\TON	1.22
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	1865
94	SQ. FT. PER HOLE:	67.0	AVG TONS / BLAST:	1522
95	TONS PER FOOT:	2.35		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	331	GRADE:	2.89
5	BLOCK:	3	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.2	1.0	4.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	1803	
52		STOPE:	331	
53		BLOCK:	3	
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	176.0	DIST. TO ORE PASS:	591
56	WIDTH - DESIGN:	30.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	46.0	SCOOP #1 PERCENT:	N/A
58	DIP:	57	SCOOP #2:	N/A
59	TONS - BLASTED:	17993	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	23993	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	53
62			TONS/DAY:	453
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	11627	Heigth:	N/A
73	TONS BY SANDFILL:	23767		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	3.3		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	28930
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	28930
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5575	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	380	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	56.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	99.6	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.3	BLAST TYPE:	CRATER
91	SPACING:	4.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	495	POWD FCTR lb\TON	1.21
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	1929
94	SQ. FT. PER HOLE:	33.0	AVG TONS / BLAST:	1600
95	TONS PER FOOT:	4.30		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	331	GRADE:	2.89
5	BLOCK:	4	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.9	1.0	4.9
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	331	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	139.0	DIST. TO ORE PASS:	485
56	WIDTH - DESIGN:	45.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	48.0	SCOOP #1 PERCENT:	100.0
58	DIP:	64	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	17244	TOTAL DAYS MUCKED:	66
61			ACT. DAYS MUCKING:	33
62			TONS/DAY:	523
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	10843	Heigth:	N/A
73	TONS BY SANDFILL:	22165		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	24003
82	NO. - FULL LENGTH:	14	lbs. AQUAMEX:	18974
83	NO. - BLIND	24	lbs. AMEX:	3225
84	TOTAL NUMBER:	38	lbs. OTHER:	1804
85	TOTAL FOOTAGE:	4433	NO. OF BLASTS:	18.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	16.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	2.0
88	# SHIFTS DRILLING:	48.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	92.4	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	16.7	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1166	POWD FCTR lb\TON	1.39
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	1334
94	SQ. FT. PER HOLE:	83.3	AVG TONS / BLAST:	958
95	TONS PER FOOT:	3.89		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1803	ZONE:	1C
4	STOPE:	331	GRADE:	2.89
5	BLOCK:	5	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1803	
51		STOPE:	331	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	140.0	DIST. TO ORE PASS:	495
56	WIDTH - DESIGN:	28.0	SCOOP #1:	5.0
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	60	SCOOP #2:	N/A
59	TONS - BLASTED:	14053	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	14172	TOTAL DAYS MUCKED:	40
61			ACT. DAYS MUCKING:	28
62			TONS/DAY:	506
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0.2	Width:	N/A
72	ACT. TONS SANDFILL:	9750	Heigth:	N/A
73	TONS BY SANDFILL:	19930		
74	S - SAND - HW:	4.7		
75	S - BACK - NO SAND:	4.1		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	4.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14053
82	NO. - FULL LENGTH:	11	lbs. AQUAMEX:	14053
83	NO. - BLIND	23	lbs. AMEX:	0
84	TOTAL NUMBER:	34	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3120	NO. OF BLASTS:	13.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	12.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	32.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	97.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	11.5	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	630	POWD FCTR lb\TON	0.99
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	1081
94	SQ. FT. PER HOLE:	57.3	AVG TONS / BLAST:	1090
95	TONS PER FOOT:	4.54		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	1A
4	STOPE:	32	GRADE:	2.95
5	BLOCK:	3	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	2201	
52		STOPE:	32	
53		BLOCK:	3	
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	153.0	DIST. TO ORE PASS:	370
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	43.0	SCOOP #1 PERCENT:	N/A
58	DIP:	60	SCOOP #2:	2.0
59	TONS - BLASTED:	20194	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	24020	TOTAL DAYS MUCKED:	119
61			ACT. DAYS MUCKING:	65
62			TONS/DAY:	370
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	72
69	HW - AVG FT	5	Pillar width:	15
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	FW
71	FOOTWALL - AVG FT	2	Width:	13
72	ACT. TONS SANDFILL:	3256	Heigth:	10
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	5.1		
75	S - BACK - NO SAND:	2.7		
76	S-BACK-SAND	2.7		
77	S - FW - SAND:	5.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	33441
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	33441
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5369	NO. OF BLASTS:	20.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	19.5
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.5
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.7	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	81
92	X-AREA @ B'THRU:	1050	POWD FCTR lb\TON	1.39
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	1672
94	SQ. FT. PER HOLE:	87.5	AVG TONS / BLAST:	1201
95	TONS PER FOOT:	4.47		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	1A
4	STOPE:	32	GRADE:	2.95
5	BLOCK:	5	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.8	1.0	4.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	32	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	145.0	DIST. TO ORE PASS:	323
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	60.0	SCOOP #1 PERCENT:	100.0
58	DIP:	63	SCOOP #2:	N/A
59	TONS - BLASTED:	25860	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	32660	TOTAL DAYS MUCKED:	58
61			ACT. DAYS MUCKING:	49
62			TONS/DAY:	667
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	60
69	HW - AVG FT	6	Pillar width:	30
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	19283	Heigth:	10
73	TONS BY SANDFILL:	39584		
74	S - SAND - HW:	6.5		
75	S - BACK - NO SAND:	3.5		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	6.5		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	17015
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	6516
83	NO. - BLIND	N/A	lbs. AMEX:	10499
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3869	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	623	NO. CRATER BLASTS:	16.5
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.5
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	11.1	BLAST TYPE:	T.C. CRATER
91	SPACING:	9.0	DAYS BLASTING:	42
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	0.52
93	NO. HOLES B'THRU:	10	AVG. lbs EXP/ BLAST:	1001
94	SQ. FT. PER HOLE:	100.0	AVG TONS / BLAST:	1921
95	TONS PER FOOT:	8.44		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	1	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	MSCHIST/SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	66	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	7.1	1.0	7.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	95.0	DIST. TO ORE PASS:	298
56	WIDTH - DESIGN:	20.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	87.0	SCOOP #1 PERCENT:	100.0
58	DIP:	83	SCOOP #2:	2.0
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	43991	TOTAL DAYS MUCKED:	85
61			ACT. DAYS MUCKING:	62
62			TONS/DAY:	710
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	2.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1.25	Width:	N/A
72	ACT. TONS SANDFILL:	23150	Heigth:	N/A
73	TONS BY SANDFILL:	47522		
74	S - SAND - HW:	6.9		
75	S - BACK - NO SAND:	2.5		
76	S-BACK-SAND	2.5		
77	S - FW - SAND:	6.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21286
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	21286
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5863	NO. OF BLASTS:	24.0
86	CLEANING FOOTAGE:	4657	NO. CRATER BLASTS:	23.5
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.5
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.5	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	56
92	X-AREA @ B'THRU:	1862	POWD FCTR lb\TON	0.48
93	NO. HOLES B'THRU:	32	AVG. lbs EXP/ BLAST:	887
94	SQ. FT. PER HOLE:	58.2	AVG TONS / BLAST:	1833
95	TONS PER FOOT:	7.50		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.58
5	BLOCK:	7A	TONNAGE FACTOR:	9.15
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	89	89	89
10	THMP RQD - CORE:	20	22	17
11	Corrected Thmp RQD:	67	68	63
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	7.4	5.7	7.0
16	PRIMARY ROCK TYPE	MSCHIST	SULPHIDE MATRIX	MSCHIST
17	UCS OF ROCK:	66	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.4	1.0
41	B:	0.5	0.35	0.5
42	C:	6.3	1.0	6.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1201	
51		STOPE:	3 SH	
52		BLOCK:	7A	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	185.0	DIST. TO ORE PASS:	563
56	WIDTH - DESIGN:	30.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	38.0	SCOOP #1 PERCENT:	N/A
58	DIP:	76	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	20600	TOTAL DAYS MUCKED:	51
61			ACT. DAYS MUCKING:	35
62			TONS/DAY:	589
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	0.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	10204	Heigth:	N/A
73	TONS BY SANDFILL:	21189		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	2.6		
76	S-BACK-SAND	2.6		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21265
82	NO. - FULL LENGTH:	16	lbs. AQUAMEX:	6933
83	NO. - BLIND	29	lbs. AMEX:	14332
84	TOTAL NUMBER:	45	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5566	NO. OF BLASTS:	17.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	9.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	8.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	7.9	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	8.0	DAYS BLASTING:	36
92	X-AREA @ B'THRU:	1012	POWD FCTR lb\TON	1.03
93	NO. HOLES B'THRU:	16	AVG. lbs EXP/ BLAST:	1251
94	SQ. FT. PER HOLE:	63.3	AVG TONS / BLAST:	1212
95	TONS PER FOOT:	3.70		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	1.39
5	BLOCK:	2	TONNAGE FACTOR:	10.04
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	QUARTZITE/SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	114.0	DIST. TO ORE PASS:	378
56	WIDTH - DESIGN:	32.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	77.0	SCOOP #1 PERCENT:	100.0
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	16233	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	28458	TOTAL DAYS MUCKED:	181
61			ACT. DAYS MUCKING:	93
62			TONS/DAY:	306
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	2.5	Width:	N/A
72	ACT. TONS SANDFILL:	17921	Heigth:	N/A
73	TONS BY SANDFILL:	33914		
74	S - SAND - HW:	7.0		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	3.4		
77	S - FW - SAND:	7.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	12410
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	12410
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6628	NO. OF BLASTS:	19.0
86	CLEANING FOOTAGE:	9358	NO. CRATER BLASTS:	19.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.7	BLAST TYPE:	TRUE CRATER
91	SPACING:	9.0	DAYS BLASTING:	55
92	X-AREA @ B'THRU:	2880	POWD FCTR lb\TON	0.44
93	NO. HOLES B'THRU:	30	AVG. lbs EXP/ BLAST:	653
94	SQ. FT. PER HOLE:	96.0	AVG TONS / BLAST:	1498
95	TONS PER FOOT:	4.29		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	3.46
5	BLOCK:	3	TONNAGE FACTOR:	9.30
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	4.5	1.0	4.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	3	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	130.0	DIST. TO ORE PASS:	285
56	WIDTH - DESIGN:	62.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	135.0	SCOOP #1 PERCENT:	100.0
58	DIP:	60	SCOOP #2:	N/A
59	TONS - BLASTED:	55129	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	68826	TOTAL DAYS MUCKED:	204
61			ACT. DAYS MUCKING:	128
62			TONS/DAY:	538
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	6.7	Pillar width:	N/A
70	FOOTWALL - TYPE	Geological	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	25	Width:	N/A
72	ACT. TONS SANDFILL:	32054	Heigth:	N/A
73	TONS BY SANDFILL:	65487		
74	S - SAND - HW:	10.1		
75	S - BACK - NO SAND:	6.5		
76	S-BACK-SAND	6.5		
77	S - FW - SAND:	10.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	20203
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	20203
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	7935	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	7499	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.7	BLAST TYPE:	CRATER /SLOUGH
91	SPACING:	8.0	DAYS BLASTING:	34
92	X-AREA @ B'THRU:	6075	POWD FCTR lb\TON	0.29
93	NO. HOLES B'THRU:	78	AVG. lbs EXP/ BLAST:	2525
94	SQ. FT. PER HOLE:	77.9	AVG TONS / BLAST:	8603
95	TONS PER FOOT:	8.67		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	4	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.5	1.0	5.5
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	125.0	DIST. TO ORE PASS:	133
56	WIDTH - DESIGN:	55.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	54.0	SCOOP #1 PERCENT:	N/A
58	DIP:	69	SCOOP #2:	N/A
59	TONS - BLASTED:	19560	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	29020	TOTAL DAYS MUCKED:	74
61			ACT. DAYS MUCKING:	46
62			TONS/DAY:	631
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	20	Pillar width:	25
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	HW / FW
71	FOOTWALL - AVG FT	5	Width:	13
72	ACT. TONS SANDFILL:	19868	Heigth:	10
73	TONS BY SANDFILL:	40785		
74	S - SAND - HW:	5.7		
75	S - BACK - NO SAND:	6.9		
76	S-BACK-SAND	4.2		
77	S - FW - SAND:	5.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	5544
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	
83	NO. - BLIND	N/A	lbs. AMEX:	
84	TOTAL NUMBER:	N/A	lbs. OTHER:	5544
85	TOTAL FOOTAGE:	4168	NO. OF BLASTS:	3.0
86	CLEANING FOOTAGE:	2234	NO. CRATER BLASTS:	1.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	2.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	44.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	6.0
90	CALC. BURDEN:	7.0	BLAST TYPE:	CRATER/SLASH
91	SPACING:	9.0	DAYS BLASTING:	14
92	X-AREA @ B'THRU:	2377	POWD FCTR lb\TON	0.19
93	NO. HOLES B'THRU:	38	AVG. lbs EXP/ BLAST:	1848
94	SQ. FT. PER HOLE:	62.6	AVG TONS / BLAST:	9673
95	TONS PER FOOT:	6.96		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	5	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.7	1.0	5.7
43				
44				
45				
46				
47				
48				

	A	B		D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	5	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	132.0	DIST. TO ORE PASS:	165
56	WIDTH - DESIGN:	35.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	71	SCOOP #2:	N/A
59	TONS - BLASTED:	19501	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	20033	TOTAL DAYS MUCKED:	73
61			ACT. DAYS MUCKING:	26
62			TONS/DAY:	771
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	35
69	HW - AVG FT	6	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	HW
71	FOOTWALL - AVG FT	4	Width:	11
72	ACT. TONS SANDFILL:	9170	Heigth:	10
73	TONS BY SANDFILL:	18824		
74	S - SAND - HW:	4.7		
75	S - BACK - NO SAND:	2.5		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	4.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	N/A
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	N/A
83	NO. - BLIND	N/A	lbs. AMEX:	N/A
84	TOTAL NUMBER:	N/A	lbs. OTHER:	N/A
85	TOTAL FOOTAGE:	4530	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	992	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.0
88	# SHIFTS DRILLING:	28.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	161.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	7.6	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2250	POWD FCTR lb\TON	N/A
93	NO. HOLES B'THRU:	33	AVG. lbs EXP/ BLAST:	N/A
94	SQ. FT. PER HOLE:	68.2	AVG TONS / BLAST:	1821
95	TONS PER FOOT:	4.42		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	8	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.3	1.0	5.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	2201	
52		STOPE:	910	
53		BLOCK:	8	
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	135.0	DIST. TO ORE PASS:	602
56	WIDTH - DESIGN:	60.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	51.0	SCOOP #1 PERCENT:	100.0
58	DIP:	67	SCOOP #2:	N/A
59	TONS - BLASTED:	22410	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	25126	TOTAL DAYS MUCKED:	83
61			ACT. DAYS MUCKING:	49
62			TONS/DAY:	513
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	80
69	HW - AVG FT	25	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW
71	FOOTWALL - AVG FT	0	Width:	12
72	ACT. TONS SANDFILL:	13985	Heigth:	10
73	TONS BY SANDFILL:	28708		
74	S - SAND - HW:	5.6		
75	S - BACK - NO SAND:	7.3		
76	S-BACK-SAND	4.2		
77	S - FW - SAND:	5.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	20450
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	20450
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4369	NO. OF BLASTS:	10.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	5.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	5.0
88	# SHIFTS DRILLING:	36.0	AVG. CHG. WT:	N/A
89	AVG. FTGE. / SHIFT:	121.4	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.2	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	29
92	X-AREA @ B'THRU:	1156	POWD FCTR lb\TON	0.81
93	NO. HOLES B'THRU:	14	AVG. lbs EXP/ BLAST:	2045
94	SQ. FT. PER HOLE:	82.6	AVG TONS / BLAST:	2513
95	TONS PER FOOT:	5.75		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	9	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.7	1.0	6.7
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	9	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	145.0	DIST. TO ORE PASS:	880
56	WIDTH - DESIGN:	41.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	34.0	SCOOP #1 PERCENT:	100.0
58	DIP:	79	SCOOP #2:	N/A
59	TONS - BLASTED:	17170	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	11314	TOTAL DAYS MUCKED:	38
61			ACT. DAYS MUCKING:	27
62			TONS/DAY:	419
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	6	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	7221	Heigth:	N/A
73	TONS BY SANDFILL:	14823		
74	S - SAND - HW:	4.2		
75	S - BACK - NO SAND:	6.6		
76	S-BACK-SAND	2.8		
77	S - FW - SAND:	4.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	18838
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	9983
83	NO. - BLIND	N/A	lbs. AMEX:	8855
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3947	NO. OF BLASTS:	16.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	15.5
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	0.5
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	7.4	BLAST TYPE:	CRATER / # 4 SLASH
91	SPACING:	9.0	DAYS BLASTING:	28
92	X-AREA @ B'THRU:	600	POWD FCTR lb\TON	1.67
93	NO. HOLES B'THRU:	9	AVG. lbs EXP/ BLAST:	1177
94	SQ. FT. PER HOLE:	66.7	AVG TONS / BLAST:	707
95	TONS PER FOOT:	2.87		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2201	ZONE:	N
4	STOPE:	910	GRADE:	2.95
5	BLOCK:	12	TONNAGE FACTOR:	9.26
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.8	1.0	6.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2201	
51		STOPE:	910	
52		BLOCK:	12	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	143.0	DIST. TO ORE PASS:	472
56	WIDTH - DESIGN:	30.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	69.0	SCOOP #1 PERCENT:	N/A
58	DIP:	80	SCOOP #2:	2.0
59	TONS - BLASTED:	23167	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	25517	TOTAL DAYS MUCKED:	70
61			ACT. DAYS MUCKING:	50
62			TONS/DAY:	510
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	6	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	5	Width:	N/A
72	ACT. TONS SANDFILL:	17023	Heigth:	N/A
73	TONS BY SANDFILL:	34944		
74	S - SAND - HW:	7.1		
75	S - BACK - NO SAND:	3.2		
76	S-BACK-SAND	3.2		
77	S - FW - SAND:	7.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	21074
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	21074
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4424	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	246	NO. CRATER BLASTS:	14.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	30.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	147.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.1	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	11.0	DAYS BLASTING:	32
92	X-AREA @ B'THRU:	1995	POWD FCTR lb\TON	0.83
93	NO. HOLES B'THRU:	20	AVG. lbs EXP/ BLAST:	1405
94	SQ. FT. PER HOLE:	99.8	AVG TONS / BLAST:	1701
95	TONS PER FOOT:	5.77		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2203	ZONE:	1C
4	STOPE:	330	GRADE:	2.89
5	BLOCK:	1/1A	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	N/A	N/A	N/A
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	85	90	85
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.4	7.5	9.4
16	PRIMARY ROCK TYPE	SCHIST	MASSIVE SULPHIDE	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	70	70	70
20	J SET #1 AZIMUTH:	85	85	85
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	260	260	260
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	85	85	85
32	J SET #4 AZIMUTH:	30	30	30
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	48	48	48
36	J SET #5 AZIMUTH:	0	0	0
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	6.0	1.0	6.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2203	
51		STOPE:	330	
52		BLOCK:	1/1A	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	120.0	DIST. TO ORE PASS:	290
56	WIDTH - DESIGN:	45.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	68.0	SCOOP #1 PERCENT:	100.0
58	DIP:	73	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	43230	TOTAL DAYS MUCKED:	86
61			ACT. DAYS MUCKING:	60
62			TONS/DAY:	721
63				
64				
65	**SLOUGH**		DEVELOPMENT	
66	BACK - TYPE	Slough	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	50	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	60
69	HW - AVG FT	0	Pillar width:	35
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	13
72	ACT. TONS SANDFILL:	23395	Heigth:	9
73	TONS BY SANDFILL:	47823		
74	S - SAND - HW:	6.6		
75	S - BACK - NO SAND:	4.1		
76	S-BACK-SAND	4.1		
77	S - FW - SAND:	6.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	40880
82	NO. - FULL LENGTH:	11	lbs. AQUAMEX:	40880
83	NO. - BLIND	72	lbs. AMEX:	0
84	TOTAL NUMBER:	83	lbs. OTHER:	0
85	TOTAL FOOTAGE:	11010	NO. OF BLASTS:	14.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	13.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	89.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	123.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	17.2	BLAST TYPE:	CRATER
91	SPACING:	5.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	945	POWD FCTR lb\TON	0.95
93	NO. HOLES B'THRU:	11	AVG. lbs EXP/ BLAST:	2920
94	SQ. FT. PER HOLE:	85.9	AVG TONS / BLAST:	3088
95	TONS PER FOOT:	3.93		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	1A
4	STOPE:	32	GRADE:	3.78
5	BLOCK:	1	TONNAGE FACTOR:	8.40
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.1	1.0	6.1
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	32	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	117.0	DIST. TO ORE PASS:	343
56	WIDTH - DESIGN:	26.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	76.0	SCOOP #1 PERCENT:	N/A
58	DIP:	74	SCOOP #2:	N/A
59	TONS - BLASTED:	18426	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	15795	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	61
62			TONS/DAY:	259
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Geological	Length:	N/A
69	HW - AVG FT	2.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	6264	Heigth:	N/A
73	TONS BY SANDFILL:	14169		
74	S - SAND - HW:	7.0		
75	S - BACK - NO SAND:	3.0		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	7.0		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	19259
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	17708
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	1551
85	TOTAL FOOTAGE:	4098	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	209	NO. CRATER BLASTS:	5.0
87	FTGE. REDRILL:	98	NO. SLASH BLASTS:	6.0
88	# SHIFTS DRILLING:	37.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	110.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.0	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	972	POWD FCTR lb\TON	1.22
93	NO. HOLES B'THRU:	18	AVG. lbs EXP/ BLAST:	1751
94	SQ. FT. PER HOLE:	54.0	AVG TONS / BLAST:	1436
95	TONS PER FOOT:	3.85		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	1A
4	STOPE:	32	GRADE:	3.20
5	BLOCK:	2	TONNAGE FACTOR:	8.60
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	M SCHIST	QUARTZITE/SCHIST
17	UCS OF ROCK:	135	66	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.3	1.0	5.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	32	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	124.0	DIST. TO ORE PASS:	314
56	WIDTH - DESIGN:	17.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	54.0	SCOOP #1 PERCENT:	N/A
58	DIP:	67	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	12551	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	31
62			TONS/DAY:	405
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	3.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	2	Width:	N/A
72	ACT. TONS SANDFILL:	5169	Heigth:	N/A
73	TONS BY SANDFILL:	11420		
74	S - SAND - HW:	5.7		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	2.0		
77	S - FW - SAND:	5.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11302
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	11302
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2671	NO. OF BLASTS:	9.0
86	CLEANING FOOTAGE:	724	NO. CRATER BLASTS:	8.0
87	FTGE. REDRILL:	194	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	31.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	86.2	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.0	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	810	POWD FCTR lb\TON	0.90
93	NO. HOLES B'THRU:	15	AVG. lbs EXP/ BLAST:	1256
94	SQ. FT. PER HOLE:	54.0	AVG TONS / BLAST:	1395
95	TONS PER FOOT:	4.70		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	1201	ZONE:	3 SH
4	STOPE:	3 SH	GRADE:	2.89
5	BLOCK:	7B	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	89	89	89
10	THMP RQD - CORE:	20	22	17
11	Corrected Thmp RQD:	67	68	63
12	Ja:	1.5	2.0	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	7.4	5.7	7.0
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	80	80	80
20	J SET #1 AZIMUTH:	95	95	95
21	FREQUENCY	6.77	6.77	6.77
22				
23	J SET #2 DIP:	30	30	30
24	J SET #2 AZIMUTH:	295	295	295
25	FREQUENCY	2.61	2.61	2.61
26				
27	J SET #3 DIP:	85	85	85
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP	85	85	85
32	J SET #4 AZIMUTH	45	45	45
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP	N/A	N/A	N/A
36	J SET #5 AZIMUTH	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	N/A	1.0
41	B:	0.5	0.35	0.5
42	C:	5.8	1.0	5.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	1201	
51		STOPE:	3 SH	
52		BLOCK:	7B	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	144.0	DIST. TO ORE PASS:	530
56	WIDTH - DESIGN:	35.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	47.0	SCOOP #1 PERCENT:	N/A
58	DIP:	72	SCOOP #2:	2.0
59	TONS - BLASTED:	25260	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	25345	TOTAL DAYS MUCKED:	81
61			ACT. DAYS MUCKING:	54
62			TONS/DAY:	469
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	RETREAT
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	3371	Heigth:	N/A
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	17716
82	NO. - FULL LENGTH:	16	lbs. AQUAMEX:	4185
83	NO. - BLIND	19	lbs. AMEX:	13531
84	TOTAL NUMBER:	35	lbs. OTHER:	0
85	TOTAL FOOTAGE:	5819	NO. OF BLASTS:	22.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	11.0
88	# SHIFTS DRILLING:	N/A	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	N/A	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	7.8	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	60
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	0.70
93	NO. HOLES B'THRU:	16	AVG. lbs EXP/ BLAST:	805
94	SQ. FT. PER HOLE:	62.5	AVG TONS / BLAST:	1152
95	TONS PER FOOT:	4.36		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	1A
4	STOPE:	32	GRADE:	1.75
5	BLOCK:	4	TONNAGE FACTOR:	9.22
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	27	92	27
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	3.0	10.2	3.0
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE/SCHIST
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	69	69	69
20	J SET #1 AZIMUTH:	80	80	80
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	16	16	16
24	J SET #2 AZIMUTH:	240	240	240
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	66	66	66
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	63	63	63
32	J SET #4 AZIMUTH:	235	235	235
33	FREQUENCY	Random	Random	Random
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.6	1.0	5.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	32	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	121.0	DIST. TO ORE PASS:	233
56	WIDTH - DESIGN:	15.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	43.0	SCOOP #1 PERCENT:	N/A
58	DIP:	70	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	5811	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	26
62			TONS/DAY:	224
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Slough	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	3.5	Width:	N/A
72	ACT. TONS SANDFILL:	10291	Heigth:	N/A
73	TONS BY SANDFILL:	N/A		
74	S - SAND - HW:	4.8		
75	S - BACK - NO SAND:	2.7		
76	S-BACK-SAND	1.7		
77	S - FW - SAND:	4.8		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	10175
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	6215
83	NO. - BLIND	N/A	lbs. AMEX:	3960
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1712	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	36	NO. CRATER BLASTS:	10.0
87	FTGE. REDRILL:	277	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	17.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	100.7	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.1	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	552	POWD FCTR lb\TON	1.75
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	925
94	SQ. FT. PER HOLE:	46.0	AVG TONS / BLAST:	528
95	TONS PER FOOT:	3.39		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	2SH
4	STOPE:	230	GRADE:	2.22
5	BLOCK:	1	TONNAGE FACTOR:	9.70
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	QUARTZITE
17	UCS OF ROCK:	70	72	135
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	7.8	1.0	7.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	230	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	95.0	DIST. TO ORE PASS:	140
56	WIDTH - DESIGN:	17.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	73.0	SCOOP #1 PERCENT:	100.0
58	DIP:	88	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	10007	TOTAL DAYS MUCKED:	40
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	250
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	6.5	Pillar width:	N/A
70	FOOTWALL - TYPE	Overbreak	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1.5	Width:	N/A
72	ACT. TONS SANDFILL:	7069	Heigth:	N/A
73	TONS BY SANDFILL:	13846		
74	S - SAND - HW:	6.3		
75	S - BACK - NO SAND:	1.8		
76	S-BACK-SAND	2.1		
77	S - FW - SAND:	6.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	4.5	TOTAL EXPLOSIVE:	5582
82	NO. - FULL LENGTH:	32	lbs. AQUAMEX:	5582
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	32	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2802	NO. OF BLASTS:	15.0
86	CLEANING FOOTAGE:	545	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	74	NO. SLASH BLASTS:	4.0
88	# SHIFTS DRILLING:	25.0	AVG. CHG. WT:	N/A
89	AVG. FTGE. / SHIFT:	112.1	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.2	BLAST TYPE:	CRATER \ SLASH
91	SPACING:	6.0	DAYS BLASTING:	15
92	X-AREA @ B'THRU:	1184	POWD FCTR lb\TON	0.56
93	NO. HOLES B'THRU:	32	AVG. lbs EXP/ BLAST:	372
94	SQ. FT. PER HOLE:	37.0	AVG TONS / BLAST:	667
95	TONS PER FOOT:	3.57		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	2SH
4	STOPE:	230	GRADE:	2.89
5	BLOCK:	2	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST/QUARTZITE	M SCHIST	SCHIST/PEGMATITE
17	UCS OF ROCK:	70	66	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	4.6	1.0	4.6
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	230	
52		BLOCK:	2	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	109.0	DIST. TO ORE PASS:	330
56	WIDTH - DESIGN:	28.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	65.0	SCOOP #1 PERCENT:	N/A
58	DIP:	61	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	14939	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	27
62			TONS/DAY:	553
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Slough	Length:	N/A
69	HW - AVG FT	0.6	Pillar width:	N/A
70	FOOTWALL - TYPE	Slough	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	1	Width:	N/A
72	ACT. TONS SANDFILL:	5146	Heigth:	N/A
73	TONS BY SANDFILL:	10519		
74	S - SAND - HW:	6.2		
75	S - BACK - NO SAND:	3.0		
76	S-BACK-SAND	3.0		
77	S - FW - SAND:	6.2		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14608
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	14608
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3736	NO. OF BLASTS:	8.0
86	CLEANING FOOTAGE:	1377	NO. CRATER BLASTS:	7.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	42.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	89.0	AVG. STANDOFF:	5.5
90	CALC. BURDEN:	6.3	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	1368	POWD FCTR lb\TON	0.98
93	NO. HOLES B'THRU:	24	AVG. lbs EXP/ BLAST:	1826
94	SQ. FT. PER HOLE:	57.0	AVG TONS / BLAST:	1867
95	TONS PER FOOT:	4.00		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	2SH
4	STOPE:	230	GRADE:	2.98
5	BLOCK:	3N	TONNAGE FACTOR:	9.42
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/MPEGMATITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	8.0	1.0	8.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	230	
52		BLOCK:	3N	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	96.0	DIST. TO ORE PASS:	260
56	WIDTH - DESIGN:	12.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	45.0	SCOOP #1 PERCENT:	N/A
58	DIP:	90	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	3526	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	11
62			TONS/DAY:	321
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	N/A
69	HW - AVG FT	0	Pillar width:	N/A
70	FOOTWALL - TYPE	Stable	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	0	Width:	N/A
72	ACT. TONS SANDFILL:	2102	Heigth:	N/A
73	TONS BY SANDFILL:	4240		
74	S - SAND - HW:	4.7		
75	S - BACK - NO SAND:	2.2		
76	S-BACK-SAND	1.4		
77	S - FW - SAND:	4.7		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	8475
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	6605
83	NO. - BLIND	N/A	lbs. AMEX:	1870
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	1096	NO. OF BLASTS:	12.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	11.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	17.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	64.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	5.9	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	689	POWD FCTR lb\TON	2.40
93	NO. HOLES B'THRU:	13	AVG. lbs EXP/ BLAST:	706
94	SQ. FT. PER HOLE:	53.0	AVG TONS / BLAST:	294
95	TONS PER FOOT:	3.22		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	2SH
4	STOPE:	230	GRADE:	2.98
5	BLOCK:	3S	TONNAGE FACTOR:	9.42
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	87	68	87
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.7	7.6	9.7
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST/PEGMATITE
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	82	82	82
20	J SET #1 AZIMUTH:	50	50	50
21	FREQUENCY	5.00	5.00	5.00
22				
23	J SET #2 DIP:	11	11	11
24	J SET #2 AZIMUTH:	320	320	320
25	FREQUENCY	2.14	2.14	2.14
26				
27	J SET #3 DIP:	70	70	70
28	J SET #3 AZIMUTH:	170	170	170
29	FREQUENCY	Random	Random	Random
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	63	63	63
36	J SET #5 AZIMUTH:	115	115	115
37	FREQUENCY	Random	Random	Random
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.4	0.5
42	C:	8.0	1.0	8.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	230	
52		BLOCK:	3S	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	95.0	DIST. TO ORE PASS:	300
56	WIDTH - DESIGN:	23.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	21.0	SCOOP #1 PERCENT:	N/A
58	DIP:	90	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	3727	TOTAL DAYS MUCKED:	N/A
61			ACT. DAYS MUCKING:	10
62			TONS/DAY:	373
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	RETREAT
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	N/A
69	HW - AVG FT	2	Pillar width:	N/A
70	FOOTWALL - TYPE	Geological	Hw or Fw:	N/A
71	FOOTWALL - AVG FT	5	Width:	N/A
72	ACT. TONS SANDFILL:	1824	Heigth:	N/A
73	TONS BY SANDFILL:	3679		
74	S - SAND - HW:	2.6		
75	S - BACK - NO SAND:	2.8		
76	S-BACK-SAND	1.7		
77	S - FW - SAND:	2.6		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	3775
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	3775
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	693	NO. OF BLASTS:	5.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	4.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	9.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	77.0	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	4.1	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	296	POWD FCTR lb\TON	1.01
93	NO. HOLES B'THRU:	8	AVG. lbs EXP/ BLAST:	755
94	SQ. FT. PER HOLE:	37.0	AVG TONS / BLAST:	745
95	TONS PER FOOT:	5.38		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.13
5	BLOCK:	1	TONNAGE FACTOR:	9.76
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	QUARTZITE	SULPHIDE MATRIX	QUARTZITE /SCHIST
17	UCS OF ROCK:	135	72	135
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.8	1.0	6.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	1	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	70.0	DIST. TO ORE PASS:	317
56	WIDTH - DESIGN:	21.0	SCOOP #1:	N/A
57	LENGTH - DESIGN:	64.0	SCOOP #1 PERCENT:	N/A
58	DIP:	80	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	9345	TOTAL DAYS MUCKED:	156
61			ACT. DAYS MUCKING:	64
62			TONS/DAY:	146
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Overbreak	Length:	30
69	HW - AVG FT	1	Pillar width:	15
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	4170	Heigth:	10
73	TONS BY SANDFILL:	8118		
74	S - SAND - HW:	5.1		
75	S - BACK - NO SAND:	2.4		
76	S-BACK-SAND	2.4		
77	S - FW - SAND:	5.1		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	15408
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	15408
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2538	NO. OF BLASTS:	44.0
86	CLEANING FOOTAGE:	776	NO. CRATER BLASTS:	43.0
87	FTGE. REDRILL:	426	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	53.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	47.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	6.0	BLAST TYPE:	CRATER /SLASH 1
91	SPACING:	8.0	DAYS BLASTING:	81
92	X-AREA @ B'THRU:	1248	POWD FCTR lb\TON	1.65
93	NO. HOLES B'THRU:	26	AVG. lbs EXP/ BLAST:	350
94	SQ. FT. PER HOLE:	48.0	AVG TONS / BLAST:	212
95	TONS PER FOOT:	3.68		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	3.74
5	BLOCK:	4	TONNAGE FACTOR:	9.15
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	PEGMATITE/SCHIST	SULPHIDE MATRIX	SCHIST
17	UCS OF ROCK:	70	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	7.3	1.0	7.3
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	4	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	70.0	DIST. TO ORE PASS:	327
56	WIDTH - DESIGN:	25.0	SCOOP #1:	2.0
57	LENGTH - DESIGN:	40.0	SCOOP #1 PERCENT:	100.0
58	DIP:	84	SCOOP #2:	N/A
59	TONS - BLASTED:	N/A	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	15243	TOTAL DAYS MUCKED:	40
61			ACT. DAYS MUCKING:	40
62			TONS/DAY:	381
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	HW & FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	4680	Heigth:	10
73	TONS BY SANDFILL:	9718		
74	S - SAND - HW:	3.9		
75	S - BACK - NO SAND:	3.4		
76	S-BACK-SAND	2.3		
77	S - FW - SAND:	3.9		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	11716
82	NO. - FULL LENGTH:	12	lbs. AQUAMEX:	11716
83	NO. - BLIND	0	lbs. AMEX:	0
84	TOTAL NUMBER:	12	lbs. OTHER:	0
85	TOTAL FOOTAGE:	2257	NO. OF BLASTS:	11.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	5.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	6.0
88	# SHIFTS DRILLING:	32.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	70.5	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	9.3	BLAST TYPE:	CRATER /SLASH 2
91	SPACING:	9.0	DAYS BLASTING:	81
92	X-AREA @ B'THRU:	1000	POWD FCTR lb\TON	0.77
93	NO. HOLES B'THRU:	12	AVG. lbs EXP/ BLAST:	1065
94	SQ. FT. PER HOLE:	83.3	AVG TONS / BLAST:	1386
95	TONS PER FOOT:	6.75		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	6.27
5	BLOCK:	7	TONNAGE FACTOR:	8.40
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST/MSCHIST	SULPHIDE MATRIX	SCHIST/QUARTZITE
17	UCS OF ROCK:	66	72	70
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	5.0	1.0	5.0
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	7	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	73.0	DIST. TO ORE PASS:	149
56	WIDTH - DESIGN:	35.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	69.0	SCOOP #1 PERCENT:	N/A
58	DIP:	65	SCOOP #2:	2.0
59	TONS - BLASTED:	20795	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	23450	TOTAL DAYS MUCKED:	61
61			ACT. DAYS MUCKING:	32
62			TONS/DAY:	733
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	Stable	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	0	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	35
69	HW - AVG FT	0	Pillar width:	42
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	9354	Heigth:	10
73	TONS BY SANDFILL:	21158		
74	S - SAND - HW:	5.4		
75	S - BACK - NO SAND:	3.9		
76	S-BACK-SAND	3.5		
77	S - FW - SAND:	5.4		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	14603
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	14603
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	4210	NO. OF BLASTS:	7.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	6.0
87	FTGE. REDRILL:	0	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	36.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	116.9	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	8.7	BLAST TYPE:	CRATER
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2730	POWD FCTR lb\TON	0.62
93	NO. HOLES B'THRU:	35	AVG. lbs EXP/ BLAST:	2086
94	SQ. FT. PER HOLE:	78.0	AVG TONS / BLAST:	3350
95	TONS PER FOOT:	5.57		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	3.56
5	BLOCK:	8	TONNAGE FACTOR:	9.30
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.2	1.0	6.2
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50		LEVEL:	2401	
51		STOPE:	910	
52		BLOCK:	8	
53				
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	80.0	DIST. TO ORE PASS:	204
56	WIDTH - DESIGN:	42.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	62.0	SCOOP #1 PERCENT:	N/A
58	DIP:	75	SCOOP #2:	N/A
59	TONS - BLASTED:	19884	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	21664	TOTAL DAYS MUCKED:	164
61			ACT. DAYS MUCKING:	83
62			TONS/DAY:	261
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	11658	Heigth:	10
73	TONS BY SANDFILL:	23817		
74	S - SAND - HW:	5.3		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	8910
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	8910
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	3480	NO. OF BLASTS:	3.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	2.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	28.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	124.3	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	10.6	BLAST TYPE:	CRATER \ SLASH 1
91	SPACING:	9.0	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	2280	POWD FCTR lb\TON	0.41
93	NO. HOLES B'THRU:	24	AVG. lbs EXP/ BLAST:	2970
94	SQ. FT. PER HOLE:	95.0	AVG TONS / BLAST:	7221
95	TONS PER FOOT:	6.23		
96				

	A	B	C	D
1	**GEOTECHNICAL**			
2				
3	LEVEL:	2401	ZONE:	N
4	STOPE:	910	GRADE:	2.89
5	BLOCK:	11 &12	TONNAGE FACTOR:	9.29
6				
7				
8		**HANGING WALL**	**ORE ZONE**	**FOOTWALL**
9	RQD:	83	83	83
10	THMP RQD - CORE:	N/A	N/A	N/A
11	Corrected Thmp RQD:	N/A	N/A	N/A
12	Ja:	1.5	1.5	1.5
13	Jn:	9.0	9.0	9.0
14	Jr:	1.5	1.5	1.5
15	Q:	9.2	9.2	9.2
16	PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	PERIDOTITE
17	UCS OF ROCK:	70	72	66
18				
19	J SET #1 DIP:	85	85	85
20	J SET #1 AZIMUTH:	225	225	225
21	FREQUENCY	N/A	N/A	N/A
22				
23	J SET #2 DIP:	15	15	15
24	J SET #2 AZIMUTH:	350	350	350
25	FREQUENCY	N/A	N/A	N/A
26				
27	J SET #3 DIP:	N/A	N/A	N/A
28	J SET #3 AZIMUTH:	N/A	N/A	N/A
29	FREQUENCY	N/A	N/A	N/A
30				
31	J SET #4 DIP:	N/A	N/A	N/A
32	J SET #4 AZIMUTH:	N/A	N/A	N/A
33	FREQUENCY	N/A	N/A	N/A
34				
35	J SET #5 DIP:	N/A	N/A	N/A
36	J SET #5 AZIMUTH:	N/A	N/A	N/A
37	FREQUENCY	N/A	N/A	N/A
38				
39				
40	A:	1.0	0.1	1.0
41	B:	0.5	0.3	0.5
42	C:	6.8	1.0	6.8
43				
44				
45				
46				
47				
48				

	A	B	C	D
49	**MINING DATA**			
50				
51		LEVEL:	2401	
52		STOPE:	910	
53		BLOCK:	11 &12	
54	**BLOCK SPECS**		**MUCKING**	
55	HEIGHT - DESIGN:	70.0	DIST. TO ORE PASS:	287
56	WIDTH - DESIGN:	45.0	SCOOP #1:	3.5
57	LENGTH - DESIGN:	70.0	SCOOP #1 PERCENT:	100.0
58	DIP:	80	SCOOP #2:	N/A
59	TONS - BLASTED:	22488	SCOOP #2 PERCENT:	N/A
60	TONS - REMOVED:	23658	TOTAL DAYS MUCKED:	38
61			ACT. DAYS MUCKING:	38
62			TONS/DAY:	623
63				
64				
65	**SLOUGH**		**DEVELOPMENT**	
66	BACK - TYPE	N/A	VBM TYPE:	TRANSVERSE
67	BACK - AVG .FT	N/A	FOR Transverse VBM:	
68	HW - TYPE	Stable	Length:	30
69	HW - AVG FT	0	Pillar width:	20
70	FOOTWALL - TYPE	Stable	Hw or Fw:	FW
71	FOOTWALL - AVG FT	0	Width:	11
72	ACT. TONS SANDFILL:	7887	Heigth:	10
73	TONS BY SANDFILL:	16122		
74	S - SAND - HW:	5.3		
75	S - BACK - NO SAND:	N/A		
76	S-BACK-SAND	N/A		
77	S - FW - SAND:	5.3		
78				
79				
80	**DRILLING**		**BLASTING**	
81	HOLE SIZE:	6.5	TOTAL EXPLOSIVE:	15895
82	NO. - FULL LENGTH:	N/A	lbs. AQUAMEX:	15895
83	NO. - BLIND	N/A	lbs. AMEX:	0
84	TOTAL NUMBER:	N/A	lbs. OTHER:	0
85	TOTAL FOOTAGE:	6637	NO. OF BLASTS:	4.0
86	CLEANING FOOTAGE:	N/A	NO. CRATER BLASTS:	3.0
87	FTGE. REDRILL:	N/A	NO. SLASH BLASTS:	1.0
88	# SHIFTS DRILLING:	61.0	AVG. CHG. WT:	55.0
89	AVG. FTGE. / SHIFT:	108.8	AVG. STANDOFF:	5.0
90	CALC. BURDEN:	18.3	BLAST TYPE:	CRATER
91	SPACING:	4.5	DAYS BLASTING:	N/A
92	X-AREA @ B'THRU:	4200	POWD FCTR lb\TON	0.67
93	NO. HOLES B'THRU:	51	AVG. lbs EXP/ BLAST:	3974
94	SQ. FT. PER HOLE:	82.4	AVG TONS / BLAST:	5915
95	TONS PER FOOT:	3.56		
96				

APPENDIX C

CASE STUDY - DEVELOPMENT OF A VERTICAL CRATER RETREAT MINE DATABASE AT INCO'S THOMPSON MINE

C1 TO C11	PAPER
C12 TO C26	FIGURES NO. 1 TO 15

DEVELOPMENT OF A VERTICAL CRATER RETREAT
MINE DATABASE
AT
INCO'S THOMPSON MINE

BY

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PREPARED FOR PRESENTATION AT THE
91st ANNUAL GENERAL MEETING
CANADIAN INSTITUTE OF MINING AND METALLURGY
QUEBEC CITY
APRIL 30 - MAY 3, 1989

ABSTRACT

Thompson mine has been converting to a bulk mining operation since 1981. In an attempt to improve efficiencies a mine database has been developed, where by parameters associate with Vertical Crater Retreat mining have been recorded and subsequently analyzed.

This paper details the purpose of a database, the type of data collected, the database development and examplifies a case study to demonstrate the methodology of evaluating data.

INTRODUCTION

Thompson Mine is a 6000 ton per day underground nickel mine located just outside the city of Thompson, 400 air miles north of Winnipeg. The mine is serviced by the T-1 and T-3 shafts. The shafts are 10000 feet apart and are connected on several levels with the deepest operating levels at T-1 and T-3 being 4000 feet and 2400 feet respectively.

Since 1981 the mine has been converting from cut and fill to a bulk mining operation to lower costs and improve safety. At Thompson Mine, vertical crater retreat (VCR) is used as the primary open stoping method. Presently, VCR contributes 80% of the mine hoist tonnage.

In 1984, Inco Ltd., Manitoba Division, was awarded a Canmet Research project contract, under the Canada/Manitoba Mineral Agreement, to prepare a set of design guidelines for VCR mining. Two key products resulted from this project; the first being an empirical model of stope stability, and the second being a VCR database which could be used for analyzing current and historical mining data, as well as assisting in increasing the efficiencies of current VCR operations.

PURPOSE OF COLLECTING DATA

Data collection serves three purposes. Firstly, data assists in understanding the actual situation so that proper evaluations can be made. Secondly, the proper evaluation of data will form the basis for actions and decisions. Too often decisions are made on judgement, based on opinions and experiences with no records for backing. Thirdly, a database allows for current data to be compared with historical data to determine whether or not a process is proceeding as normal or whether the process has actually changed.

DATA COLLECTION

Vertical Crater mining involves large volumes of ground being excavated in short periods of time and results in quick changes in the rock mass surrounding the excavation. For this reason, data collection must be simple, rapid and as quantitative as possible.

The scope of this project involved collection of data for 126 previously mined VCR blocks. Figure 1 distinguishes the difference between the terms stope and block for the purpose of this paper. Although more than 150 VCR blocks have been mined to date, timing and record availability limited the data base to 126 VCR blocks. It was speculated that this would provide a large enough sample to statistically evaluate and determine possible correlations when analyzed.

Data was collected and categorized for each block as follows:

1. Geotechnical
2. Geometrical
3. Drilling
4. Blasting
5. Mucking
6. Development

A total of 81 parameters were collected and 21 parameters calculated for each block. Figures 2 to 7 detail some of the parameters collected of each category. Geotechnical properties were based on detailed scanline surveys along with drill core analysis. The remainder of the parameters were gathered from the mine engineering records.

In the situation whereby a mine operates without the services of a ground control group, the question arises as to who should ultimately be responsible for the collection of this data. In this case the first component, geotechnical properties, should be assembled by the geology department. The mine beat geologists regularly map all headings and log all diamond drill core, and as a result are exposed to parameters such as fracture frequency, joint alteration and infilling on a daily basis. Data collection for the other five categories, geometrical, drilling, blasting, mucking and development should be functions of the mine engineering department. Individuals from this group evaluate these properties in an effort to improve mine efficiencies.

DATABASE DEVELOPMENT

A mine database must be designed to allow simple input of information and be equally as simple to permit analysis. The information collected must be readily assimilated into a summary description. It should also be capable of being used on both a mine wide basis for mine averages or long term planning purposes, and on a stope basis for specific designing and predictions of stope behaviour.

The Thompson Mine database is set-up on a Microsoft Excel spreadsheet system on a Compaq 386 personal computer. Each VCR block has its own stope data sheet. Data is entered upon the completion of the backfilling cycle of any given block. The information contained on each stope data sheet is automatically extracted into an Excel mine summary spreadsheet where statistical evaluations and correlations can be completed. For graphing purposes, the mine summary data is downloaded into a Lotus 123 spreadsheet and then to the Autocad system for final touch ups. Figure 8 displays the data analysis process.

Although this data analysis process may seem complicated due to the conversions of Excel, Lotus and Autocad, it was the most economical at the time, requiring no additional software and macro programming.

DATABASE ADMINISTRATION

Ideally, such a database should be administered by one person. The incumbent could enter, check data for accuracy and analyze for trends and correlations. In this way, the database is maintained, kept current and information is analyzed regularly. Responsibilities would also include education of personnel using the data, whether it be a geologist wanting to know the average amount of hanging wall slough or a mine engineer interested in improving the powder factor.

CASE STUDY

The following is a case study where mine data parameters were compared in an attempt to understand the actual situation so that proper evaluations could be initiated to improve the process. The results are based on 126 VCR blocks mined at the Thompson Mine. In this example, the actual data values presented are of secondary importance, the methodology of evaluating data in an attempt to finding the answer is the main concern.

In all mining operations there is a necessity to restrict the dilution of the mine ore. Dilution can be defined as the mixing of rock with the ore thus reducing the ore grade. The cause of dilution can be attributed to the mining of wall rock or an instability in the wall rock. The mining of wall rock for the most part can be credited to the lack in information on the ore body structure. It may also be intentional, such as due to equipment size restraints in narrow ore zones. Wall rock instability,on the other hand, may or may not be avoidable and produces structure failure and results in spawling or sloughing of the wall rock.

At the present nickel prices one ton of rock placed into the mine ore hoist at Thompson Mine represents in excess of $200/ton lost revenue. At this value of lost earnings the attention must be focused on the explanation of why the wall rock sloughs and what can be done to reduce wall rock instability.

Figure 9 is a plot of hanging wall slough verses dip. One would expect the hanging wall to fail more in shallow dipping orebodies but the data plotted on the graph contradicts this assumption. As such, other parameters must be evaluated.

Figure 10 shows the relative hanging wall stability by wall rock type. The results reveal that a majority of the VCR block walls that have failed are composed of a schist rock type. On the other hand, 70% of the VCR blocks containing schist wall rock were stable, so there must be addition factors contributing to wall failure.

The Thompson Mine orebody is divided into 6 zones based on location throughout the mine. Figure 11 is a plot of hanging wall stability by ore zone. This graph reveals that slough occurs in all of the Thompson Mine zones and is not predominant in certain zones as one may expect.

Characteristics of the rock jointing reduce the rock quality and the overall rock mass strength. This reduction in strength creates instability and in turn may produce wall failure. Figure 12 is a plot of rock quality Q' versus hanging wall slough. One may conclude from this graph that although the rock quality Q' may vary, it does not adversely affect the amount of slough. As such, other factors must be contributing to wall failure.

Up to this stage the inherent parameters have been evaluated but no consideration has been given to factors induced by mining practices. Two such factors are hanging wall exposure spans and powder factors.

Figure 13 is a graph of hanging wall stability versus size. The length and height of hanging wall exposures for both caved and stable walls has been plotted. An arbitrary hanging wall failure criteria line has been applied to separate the stable from the potentially unstable zone. This hanging wall failure line can serve as a design guideline for VCR blocks. If the design dimensions are on the outside of the hanging wall failure criteria line, slough may be expected.

Powder factor is a parameter used industry wide to evaluate blasting efficiencies. In VCR blasting, too much explosive can damage wall rocks severely and as a result induce sloughing of the wall rocks. Figure 14 is a plot of powder factor versus hanging wall slough. Approximately 70% of the VCR blocks had powder factors between 0.4 and 1.4 lbs/ton, of which, 60% had no slough. For the VCR blocks that did have wall failures, no correlation was apparent in regards to powder factor.

Six parameters have been evaluated and interpreted with the only conclusion being that if the height and length dimensions are on the outside of the hanging wall failure line (Figure 13), slough can be expected and thus should be included in calculating tonnages and ore grades of VCR blocks.

Although a simple conclusion has been discovered with regards to slough based on the data presented, the data analysis is not complete. In Figure 14, 70% of VCR blocks had powder factors ranging from 0.4 to 1.4. One would expect this wide variation since inherent factors, such as rock mass strength and underground stresses, affect blasting efficiencies. One area that could be evaluated is the blasting practice.

Figure 15 is a plot of powder factor versus tons blasted. The graph illustrates that for the small VCR blocks (<20000 tons) the powder factor has a wide variation. On the other hand, for the large VCR blocks (>20000) tons) the powder factor ranged between the limits of 0.8 lbs/ton and 0.4 lbs/ton. This represents a possible cost saves if the powder factor can be reduced.

At this stage the analysis of powder factors should be temporarily terminated until a reduction in powder factor on blocks larger than 20000 tons is tested. The results of the test, along with the data collection parameters, should be recorded in the database and re-evaluated. In this way the database is updated with current data which allows for oning analysis.

The case study that was analyzed may or may not have revealed concrete conclusions. Many factors may have been omitted in this analysis. The importance of this process was to illustrate the value of collected data and logical analysis which can provide answers. Too often an incorrect decision is made on unjustified initial judgement,where the collection of data and subsequent analysis could reveal the answer and possibly result in a cost savings.

CONCLUSIONS

The overall value of a database of this nature is best described by its advantages and constraints.

Advantages:

1. Serves as a historical record
2. Provides a working database for analytical and empirical purposes
3. Provides a statistical database for quality improvement

Constraints:

1. Time consuming to set-up and maintain
2. Requires computer equipment and expertise

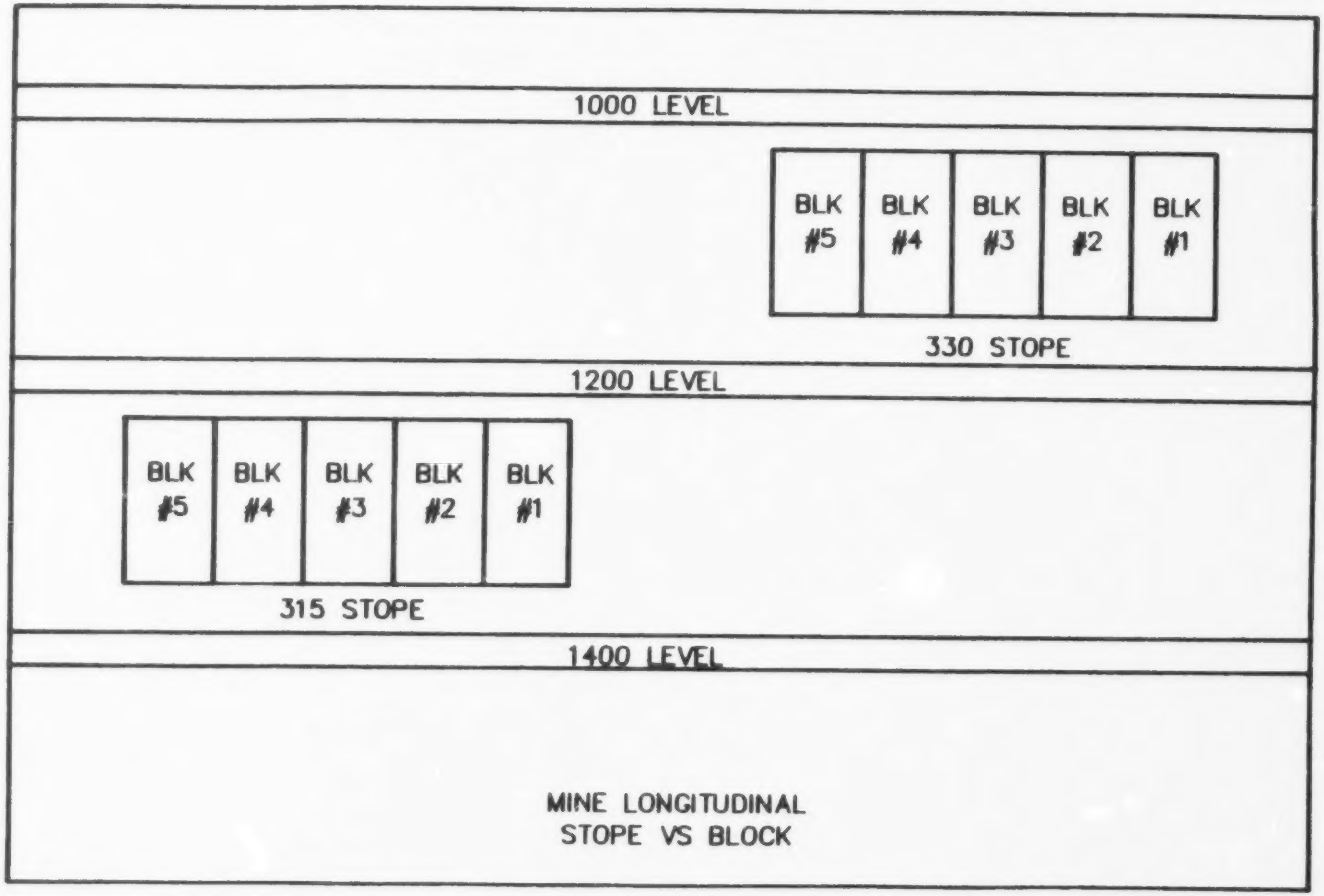

1000 LEVEL
BLK #5
BLK #4
BLK #3
BLK #2
BLK #1
330 STOPE
1200 LEVEL
BLK #5
BLK #4
BLK #3
BLK #2
BLK #1
315 STOPE
1400 LEVEL
MINE LONGITUDINAL
STOPE VS BLOCK

Figure 1

GEOTECHNICAL DATA

	HANGING WALL	ORE ZONE	FOOTWALL
RQD:	80	89	89
THMP RQD - CORE:	20	22	17
Corrected Thmp RQD:	67	68	63
Ja:	1.5	2.0	1.5
Jn:	9.0	9.0	9.0
Jr:	1.5	1.5	1.5
Q:	7.4	5.7	7.0
PRIMARY ROCK TYPE	SCHIST	SULPHIDE MATRIX	SCHIST
UCS OF ROCK (MPa)	66	72	66
J SET #1 DIP:	80	80	80
J SET #1 AZIMUTH:	95	95	95
FREQUENCY	0.77	0.77	0.77
J SET #2 DIP:	30	30	30
J SET #2 AZIMUTH:	295	295	295
FREQUENCY	2.01	2.01	2.01
J SET #3 DIP:	85	85	85
J SET #3 AZIMUTH:	170	170	170
FREQUENCY	Random	Random	Random
J SET #4 DIP	85	85	85
J SET #4 AZIMUTH	45	45	45
FREQUENCY	Random	Random	Random

Figure 2

GEOMETRICAL DATA

HEIGHT - DESIGN (FT)	185
WIDTH - DESIGN (FT)	30
LENGTH - DESIGN (FT)	30
DIP:	70

TONS CALC -H X W X L	23049
TONS - BLASTED:	20000
TONS - REMOVED:	20000
TONS - REMAINING:	0
TONS - SLOUGH:	447
ACT. TONS SANDFILL	10064

SLOUGH STATIS

BACK - TYPE	Stable
BACK - AVG FT	0
HW - TYPE	Geological
HW - AVG FT	0.7
FOOTWALL - TYPE	Stable
FOOTWALL - AVG FT	0

Figure 3

DRILLING DATA

HOLE SIZE (INCHES)	6.5
NO. - FULL LENGTH:	16
NO. - BLIND	29
TOTAL NUMBER:	45
TOTAL FOOTAGE:	6463
CLEANING FOOTAGE:	233
FTGE. REDRILL:	302
# SHIFTS DRILLING:	50
AVG. FTGE. / SHIFT:	129.0
CALC. BURDEN:	7.9
SPACING:	8.0
X-AREA @ B'THRU :	1012
NO. HOLES B'THRU:	16
SQ. FT. PER HOLE:	63.3
TONS PER FOOT:	3.2

Figure 4

BLASTING DATA

TOTAL EXPLOSIVE :	21265
lbs. AQUAMEX:	0
lbs. AMEX:	21265
lbs. OTHER:	0
NO. OF BLASTS:	24
NO. CRATER BLASTS:	23
NO. SLASH BLASTS:	1
AVG. CHG. WT:	55.0
AVG. STANDOFF:	5.0
BLAST TYPE:	CRATER
DAYS BLASTING:	36
POWD FCTR lb\TON	1.03
AVG. lbs EXP/ BLAST:	886
AVG TONS / BLAST:	858

Figure 5

MUCKING DATA

HAUL DISTANCE (FT):	583
SCOOP #1:	3.5
SCOOP #1 PERCENT:	85.0
SCOOP #2:	2.0
SCOOP #2 PERCENT:	15.0
ACT DAYS MUCKING	35.0
SHIFTS MUCKING:	61.0
TONS / DAY:	580
TONS/SHIFT:	330

Figure 6

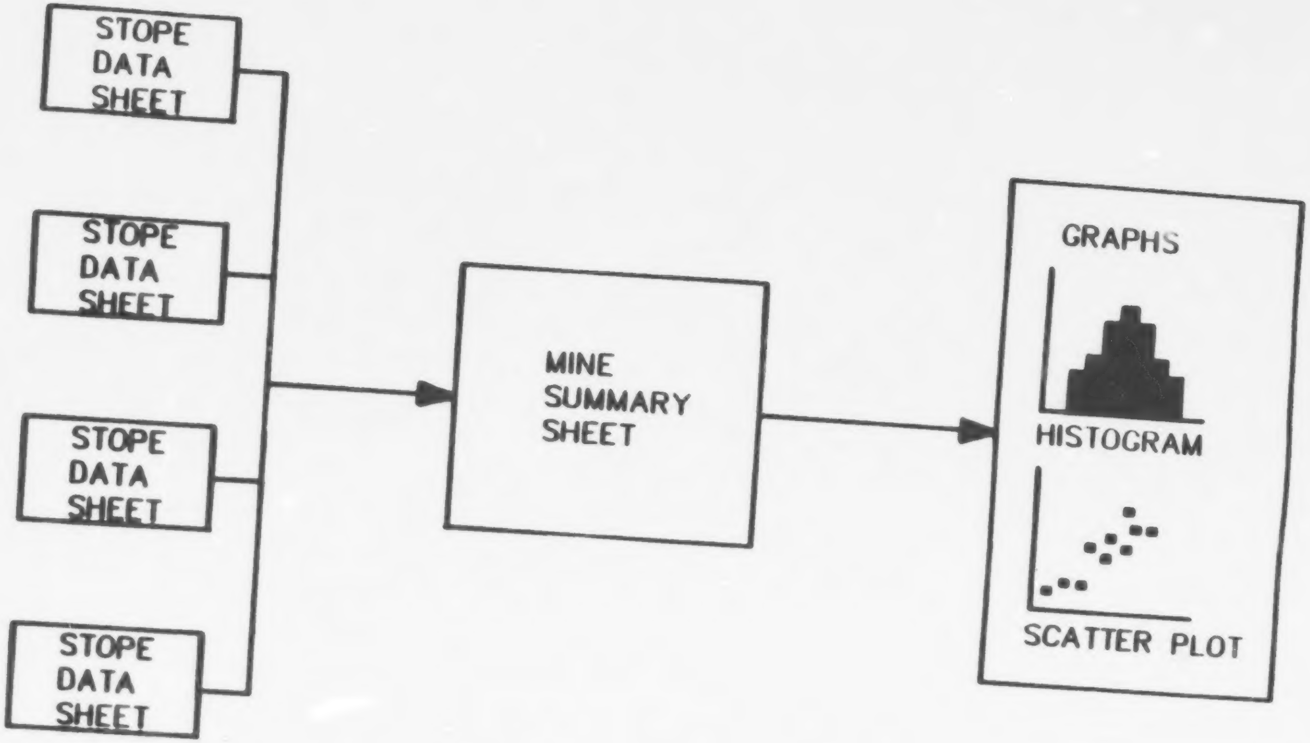
DEVELOPMENT DATA

VBM TYPE:	RETREAT

DRAW POINT DATA

LENGTH (FT):	40
PILLAR WIDTH (FT):	25
HW OR FW:	HW
WIDTH (FT):	11
HEIGHT (FT):	10

Figure 7


STOPE DATA SHEET
STOPE DATA SHEET
STOPE DATA SHEET
STOPE DATA SHEET
MINE SUMMARY SHEET
GRAPHS
HISTOGRAM
SCATTER PLOT

DATA ANALYSIS PROCESS

Figure 8

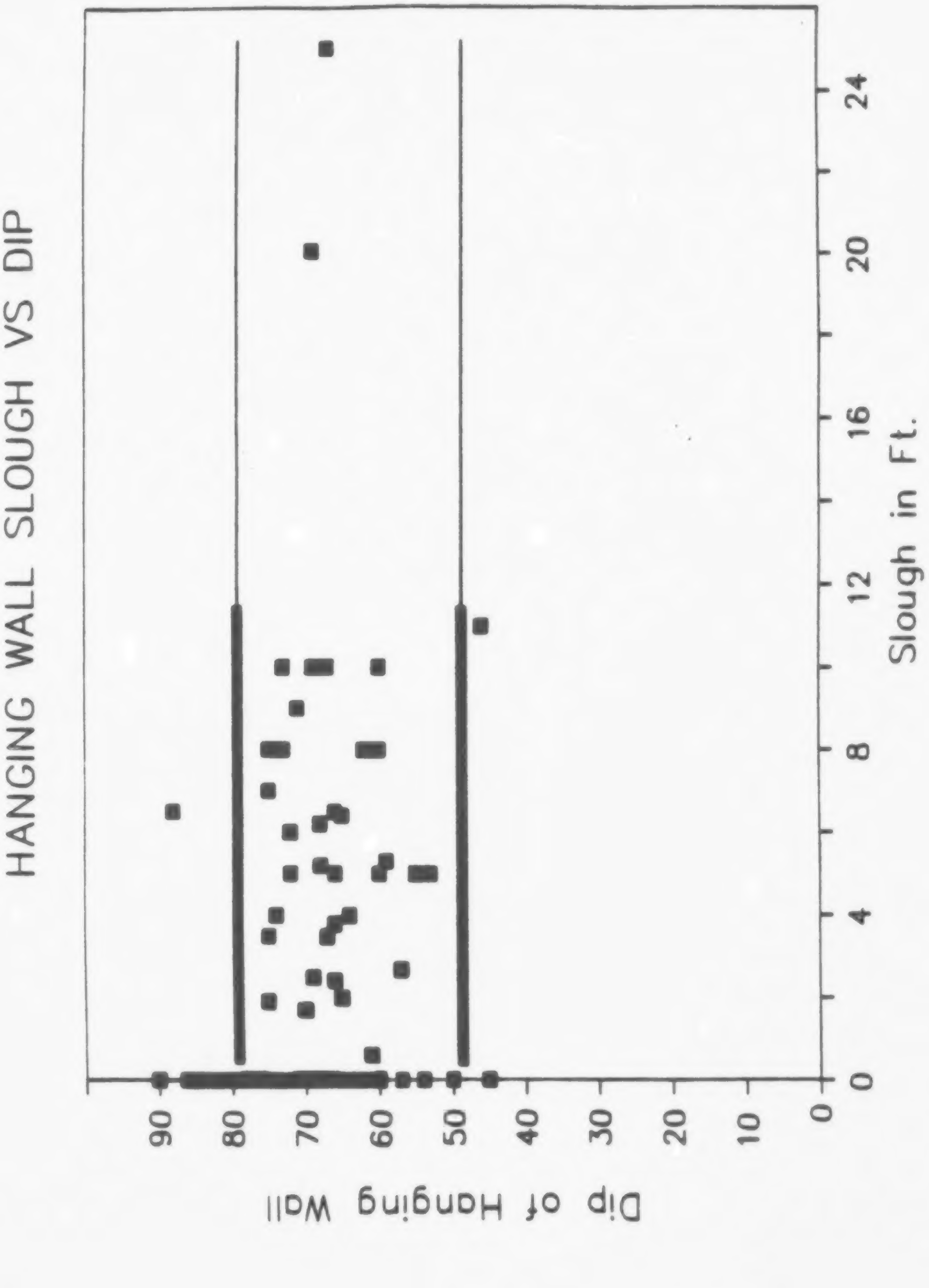

HANGING WALL SLOUGH VS DIP
Dip of Hanging Wall
90
80
70
60
50
40
30
20
10
0
0
4
8
12
16
20
24
Slough in Ft.

Figure 9

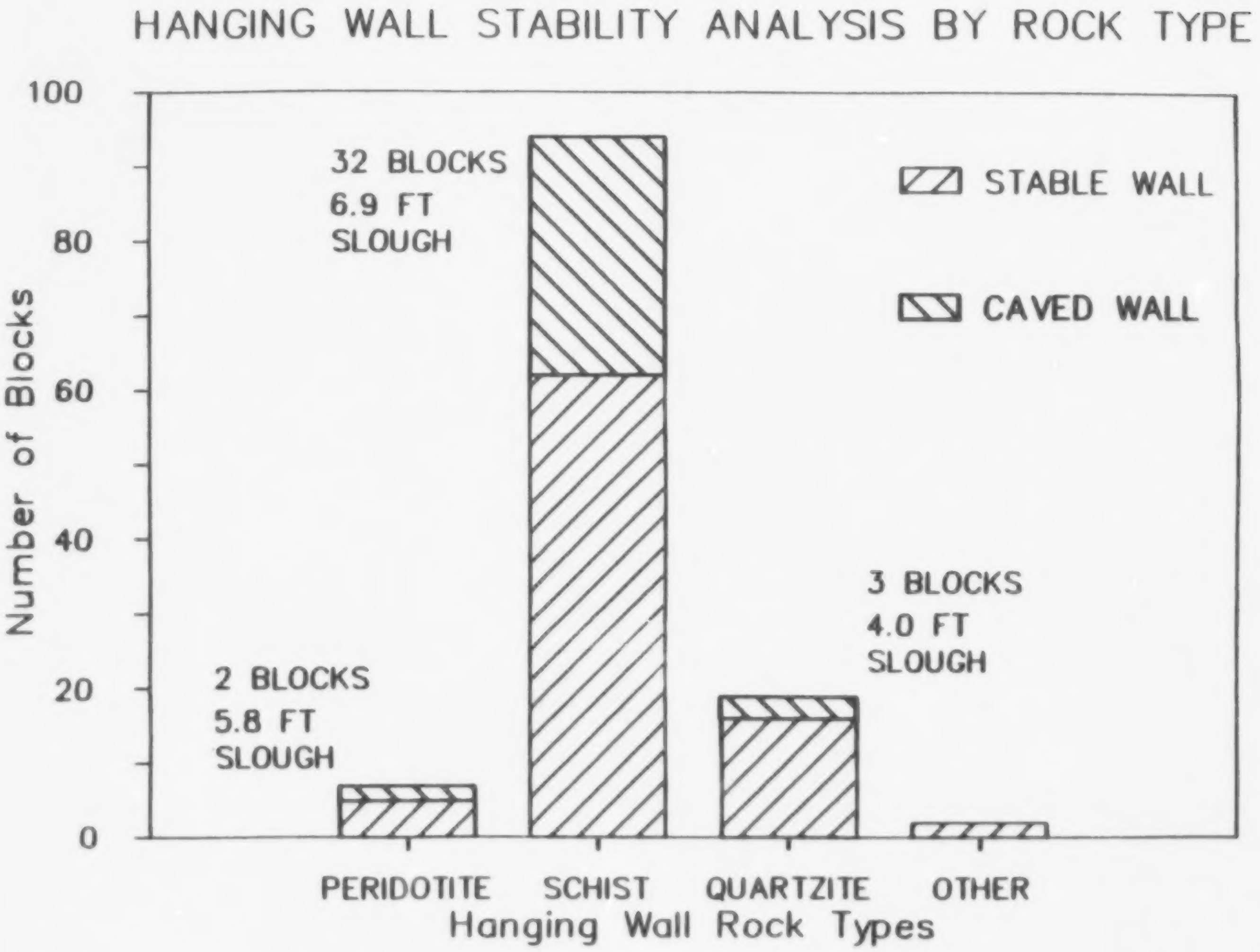

HANGING WALL STABILITY ANALYSIS BY ROCK TYPE
Number of Blocks
100
80
60
40
20
0
32 BLOCKS
6.9 FT
SLOUGH
2 BLOCKS
5.8 FT
SLOUGH
3 BLOCKS
4.0 FT
SLOUGH
▨ STABLE WALL
▧ CAVED WALL
PERIDOTITE
SCHIST
QUARTZITE
OTHER
Hanging Wall Rock Types

Figure 10

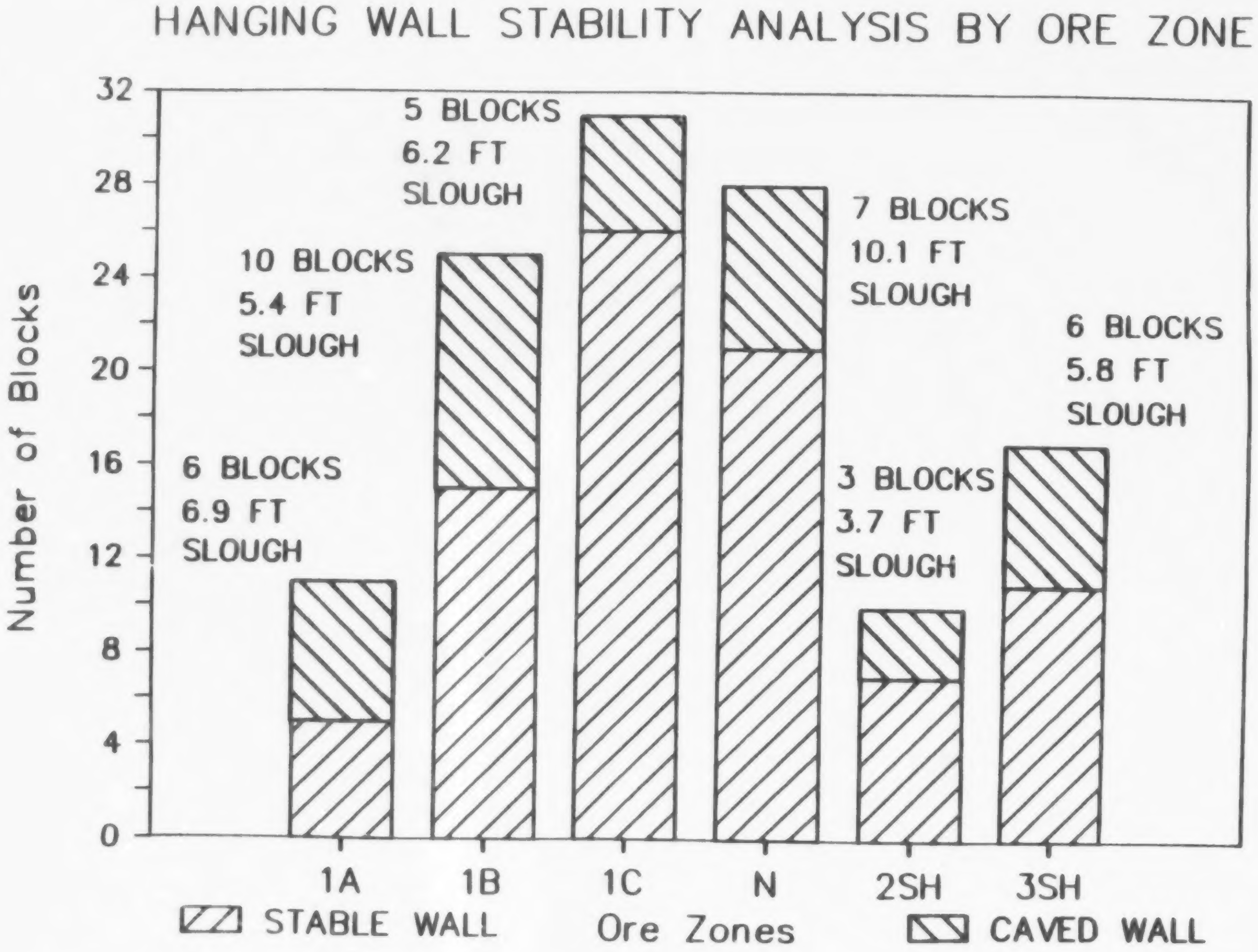

HANGING WALL STABILITY ANALYSIS BY ORE ZONE
Number of Blocks
0
4
8
12
16
20
24
28
32
6 BLOCKS
6.9 FT
SLOUGH
10 BLOCKS
5.4 FT
SLOUGH
5 BLOCKS
6.2 FT
SLOUGH
7 BLOCKS
10.1 FT
SLOUGH
3 BLOCKS
3.7 FT
SLOUGH
6 BLOCKS
5.8 FT
SLOUGH
1A
1B
1C
N
2SH
3SH
Ore Zones
▨ STABLE WALL
▧ CAVED WALL

Figure 11

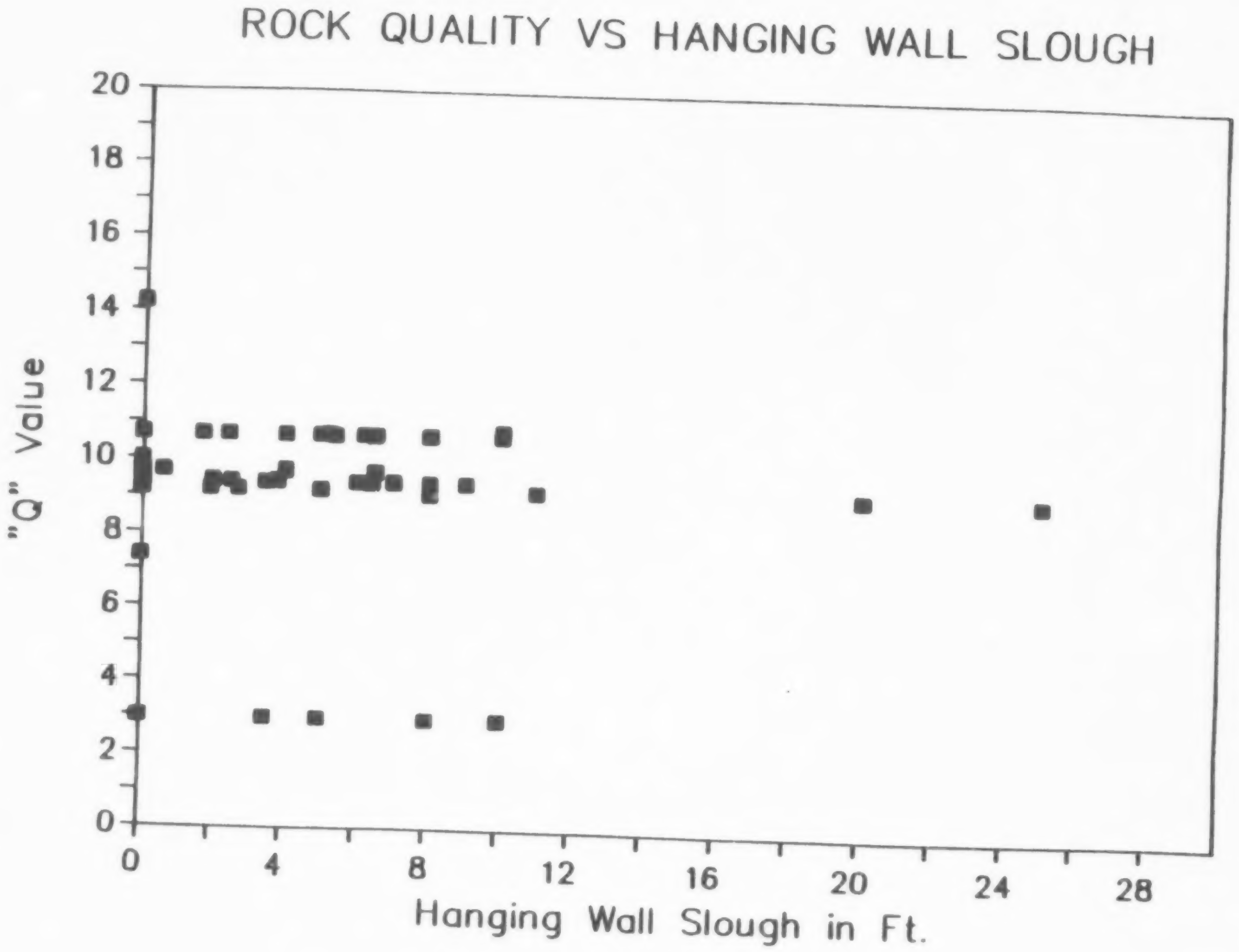

ROCK QUALITY VS HANGING WALL SLOUGH
"Q" Value
20
18
16
14
12
10
8
6
4
2
0
0
4
8
12
16
20
24
28
Hanging Wall Slough in Ft.

Figure 12

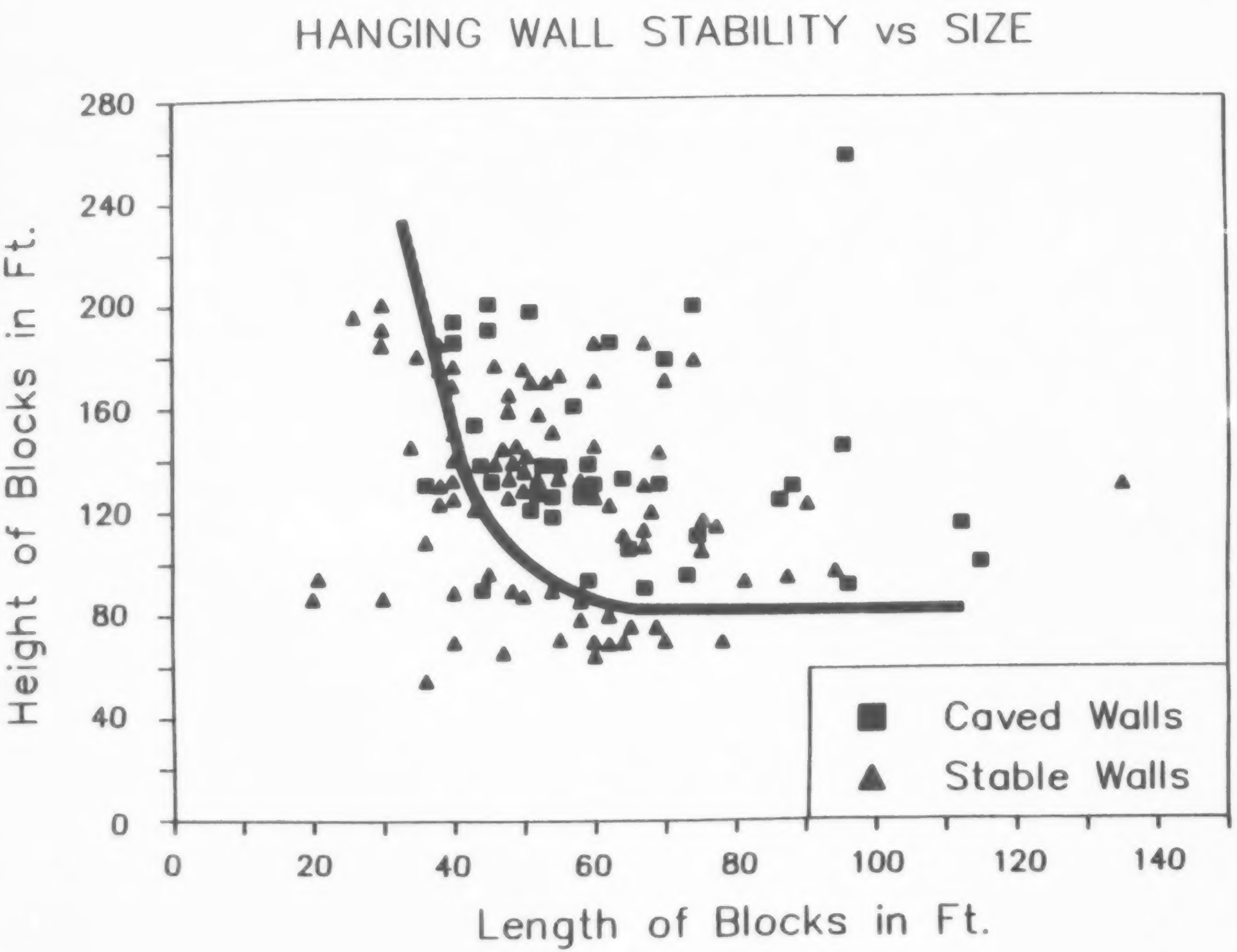

HANGING WALL STABILITY vs SIZE
Height of Blocks in Ft.
280
240
200
160
120
80
40
0
Length of Blocks in Ft.
0
20
40
60
80
100
120
140
■ Caved Walls
▲ Stable Walls

Figure 13

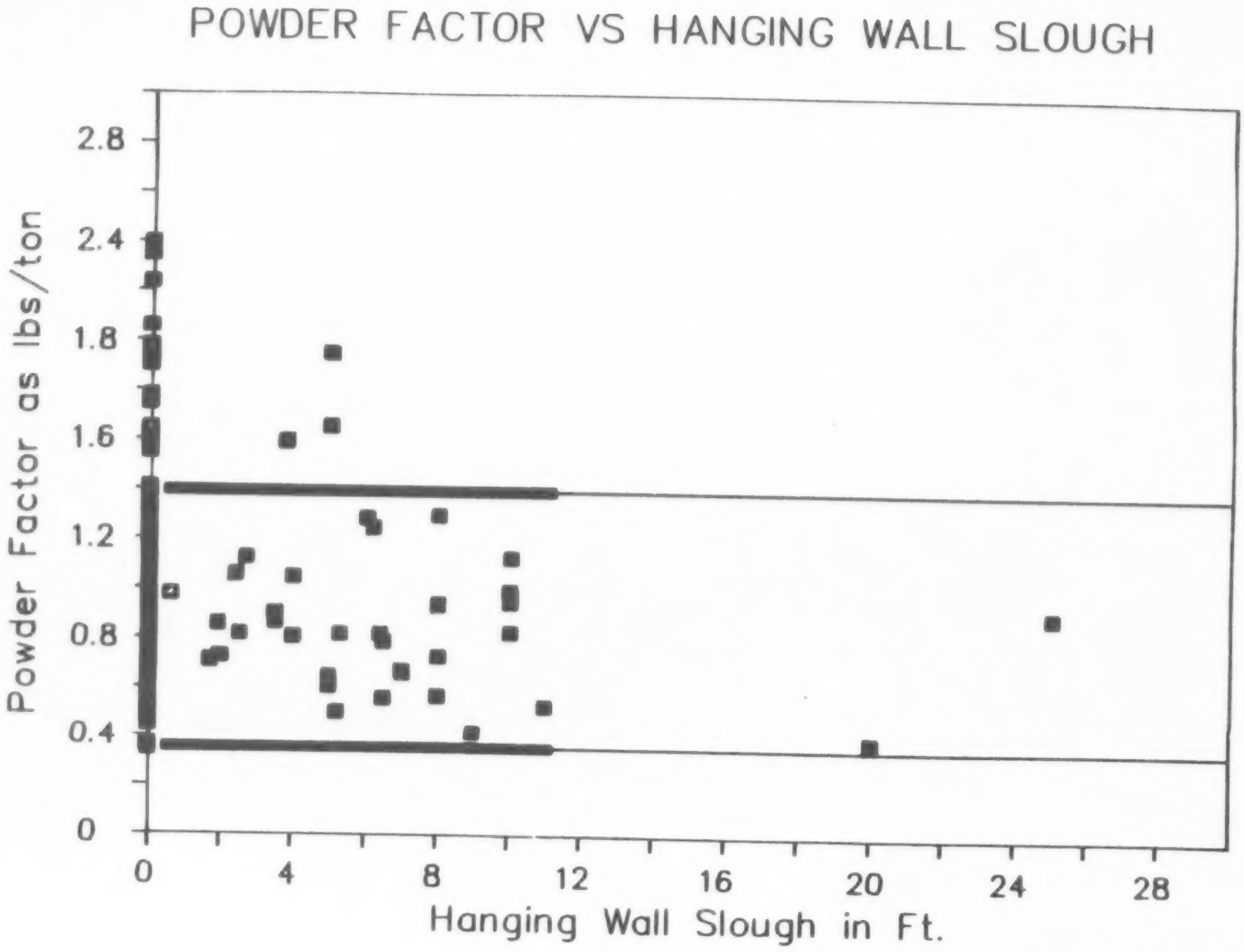

POWDER FACTOR VS HANGING WALL SLOUGH
Powder Factor as lbs/ton
2.8
2.4
1.8
1.6
1.2
0.8
0.4
0
0
4
8
12
16
20
24
28
Hanging Wall Slough in Ft.

Figure 14

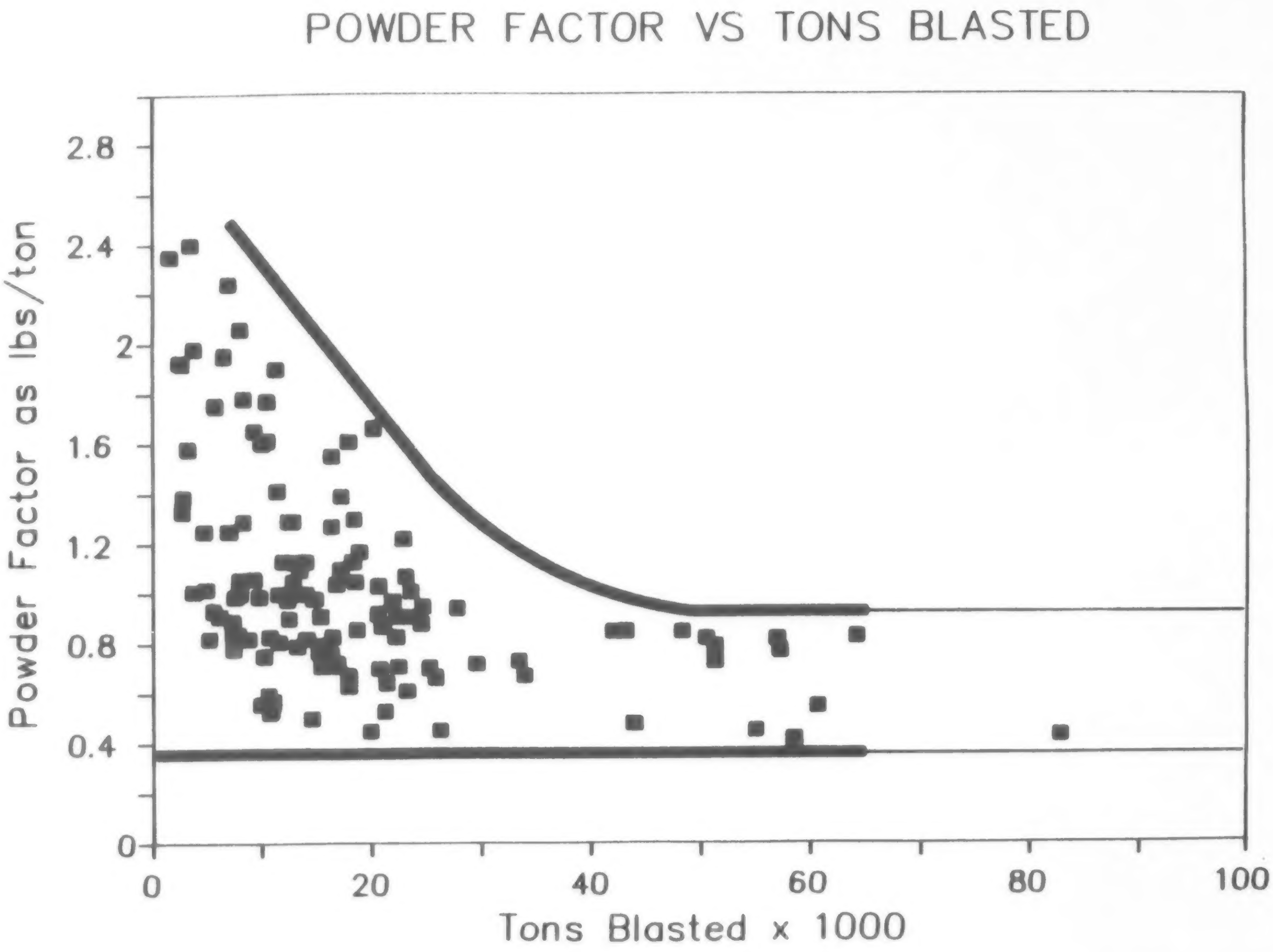

POWDER FACTOR VS TONS BLASTED
Powder Factor as lbs/ton
2.8
2.4
2
1.6
1.2
0.8
0.4
0
0
20
40
60
80
100
Tons Blasted x 1000

Figure 15

APPENDIX D

METHODS OF LINE SURVEYS

D1 TO D3	METHODS OF SCANLINE SURVEYS
D4 TO D10	FIGURES NO. 2D.1 TO 2D.7

APPENDIX D - METHODS OF SCANLINE SURVEYS

Standard Procedure for Collection
of Geotechnical Data
from Detail Line Surveys

DETAIL LINE SURVEYS

Method of Survey

The detail line method is a systematic sampling technique used to characterize rock joint properties (Call, 1972; Safely, 1972; and Piteau, 1973). Ideally, the sites are randomly selected and the lines have random orientations.

At the selected mapping site, a tape is stretched along the rock exposure to intersect the greatest number of joints. The tape is used as a reference line. The mapping zone is parallel to the tape and extends approximately 0.9m (3 ft) above and below the reference line. The fractures falling within the mapping zone are described using a standard format. A typical record sheet is shown in Figure D1. On this sheet the following information is recorded:

Joint Data (means any type of discontinuity)

Column 1. NO. The number of the discontinuity from the start of detailed line survey.

2. DIDT. Distance along tape where the discontinuities or their projections intersect the tape.

3. TYPE Type of discontinuity. At site includes: (See also Figure D2)
B = Bedding
JS = Joint Set
SJ = Single Joint
DI = Dike
CT = Contact
EX = Extremely weathered zone
EA = Extremely altered zone
FL = Foliation
S? = Undefined Surface
FT = Shear Plane (Fault)
SZ = Shear Zone (Fault)
CZ = Crushed Zone (Fault)

4. DIP DIR. Direction of dip measured from Thompson Mine North

5. DIP ANG. Angle of dip measured from the horizontal.

6. SIZ. Length in meters.

7. END Can ends be seen?
2 = Both ends disappear from site or are covered.
1 = One end disappears from site.
0 = Both ends terminate within site.

8. RUFF Roughness of joint surface as measured with a carpenter's comb and compared to roughness profiles as defined by Barton (1977). (See Figure D3).

9. INFL Use Mines Exploration Standard abbreviations.

10. APPET Apparent width, as measured, or estimated.
Very tight = VT 0.1 - 0.1 mm
Tight = T 0.1 - 0.25 mm
Partly Open = PO 0.25 - 0.5 mm
Open = 0 0.5 - 2.5 mm
Moderately Wide = MW 2.5 - 10 mm

11. FILL HRDN. Fill hardness. The following scale is from the International Society of Rock Mechanics (1977).

Symbol	Description	Field Identification
S1	Medium-Strong Rock or rock	Easily moulded by fingers; shows heels marks.
S2	Soft soil or rock.	Moulded with strong pressure from fingers; shows faint heel marks.
S3/RO	Firm soil or extremely weak rock.	Very difficult to mould with fingers, indented with finger nail; difficult to cut with hand spade.
S4/R1	Stiff soil or very weak rock.	Cannot be moulded with fingers; crumbles under blow of hammer, or can be peeled with knife.
S5/R2	Very stiff soil or weak rock.	Very tough, difficult to move with hand pick; peeled by knife with difficulty, indented by blow of hammer.
R3	Medium-strong rock.	Cannot be scraped with knife; fractured with single blow of hammer.
R4	Strong rock.	Requires more than single blow of hammer to fracture.
R5	Very strong rock.	Requires many blows of hammer to fracture rock.
R6	Extremely strong	Can only be chipped by repeated rock. hammer.

Column 12. WTR. Water condition along discontinuity.
1 D = dry
2 M = moist
3 W = wet, i.e., dripping
4 F = flow, continuous stream

13. WAV. Waviness. Descriptive Classification
P = Planar
C = Curved
R = Rough or stepped
U = Undulating
(See Figure D4 for more complete explanation)

14. LITH. Lithology of rock type at the point of the discontinuity. Use Mines Exploration Standard abbreviations.

15. Rock Hardness as based on the scale of R values HRDN. given under Column 11.

16 &
17. Depending upon the geologic environment, other Spare factors related to discontinuities may be considered significant and may be coded.

The following is however, recommended:

16. Minimum Dip. The difference between minimum and maximum dip of the discontinuity within the mapping zone, measured in degrees.

17. Numeric cross reference to notes made in field book.

Standard Procedure for Collection
of Geotechnical Data from Scan Line Surveys

SUGGESTED METHOD FOR SCANLINE SURVEY

Equipment Required: Clino Rule, Douglas protractor with orienting arm, 30m measuring tape, grease crayon, patience, recording sheets.

Method:

1. Select survey site. Ideally for every site 3 mutually perpendicular scanlines should be run; one along strike; one at right angles to strike; and one vertically. Due to access restrictions, however, this may not always be possible.

2. Stretch tape along selected survey area and record distance at the end of the tape. Mark ends for possible future reference. Note approximate location on level plan, and cross-referenced on recording sheet. Generally, it will not be necessary for survey to precisely locate the scanline, unless a specific geologic feature or structure is intersected (eg. a fault).

3. The tape marks the centre of a linear sampling window (see Figure D5) defined by band 0.5m above and 0.5 below the tape. Only those discontinuities that fall within this window are to be measured.

4. Inspect the sampling window to identify the number of joint sets and any random joints that exist within the sampling window; that is look first!

5. Start with the most frequently occurring joint set. Measure the dip and dip direction of the first joint of this set that intersects the sampling window. Move along the sampling window counting all joints with similar orientations until there is an evident change in the orientation. Record this number. Measure the dip and dip direction of the joint that occurs at the change and continue along the tape, counting those joints with similar orientations. Repeat this process until the end of the line is reached.

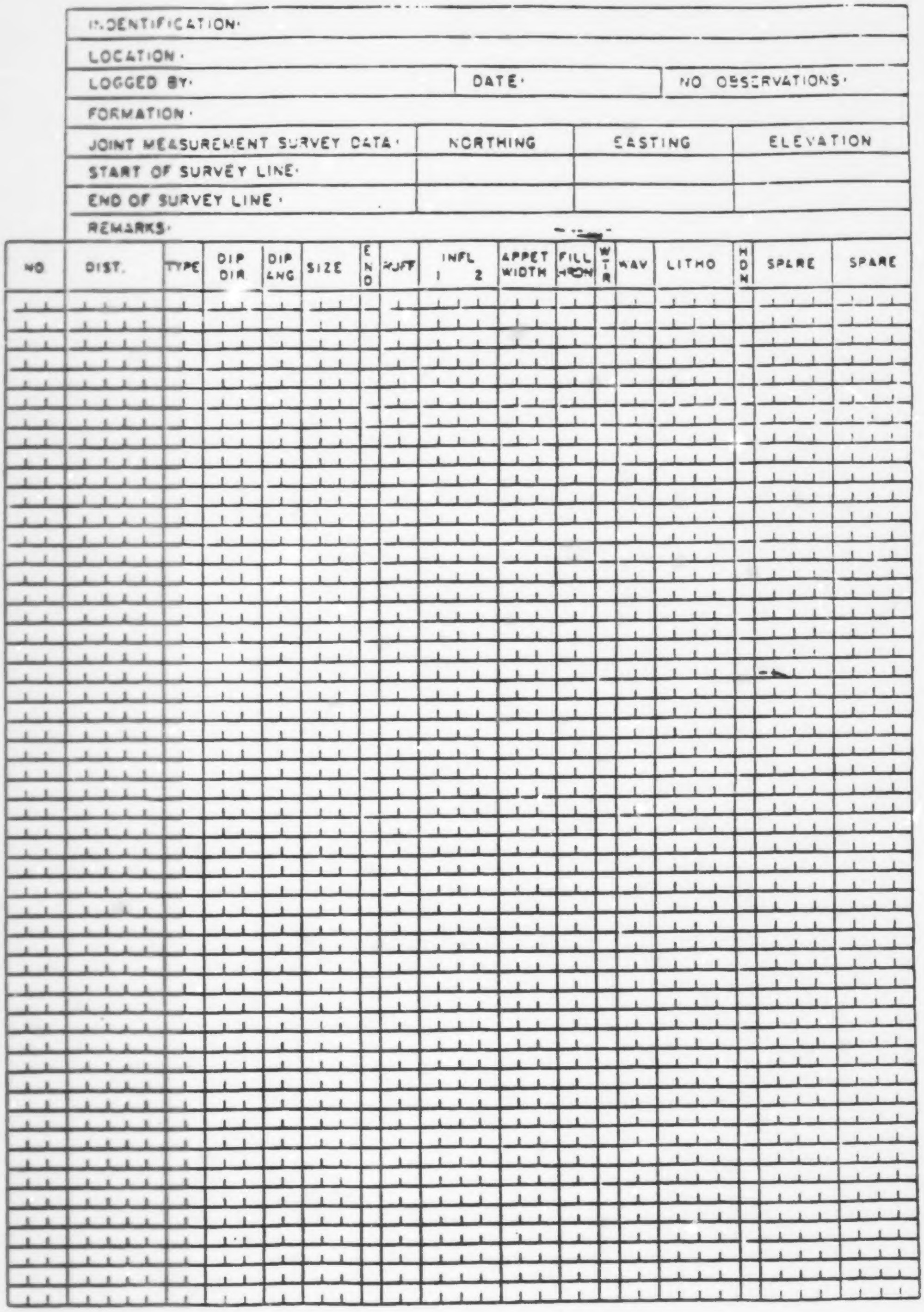
6. At measurement of dip and dip direction the surface condition of the joint surface should be recorded using either the carpenters comb to estimate a Joint Roughness Coefficient (JRC) with the aid of the profiles shown in Figure D6.

7. Repeat steps 5) and 6) for the remaining joint sets identified and for any random joints.

A typical record sheet is shown in Figure D7.

TYPICAL RECORD SHEET

FIG. 2D.1



INDENTIFICATION:

LOCATION:

LOGGED BY: | DATE: | NO OBSERVATIONS:

FORMATION:

JOINT MEASUREMENT SURVEY DATA:	NORTHING	EASTING	ELEVATION
START OF SURVEY LINE:			
END OF SURVEY LINE:			

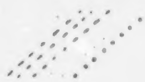
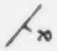
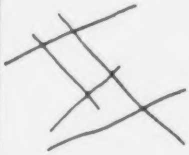
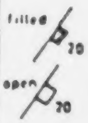
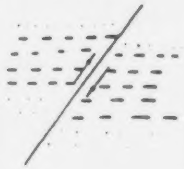
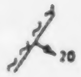
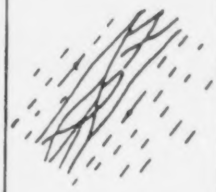
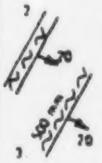
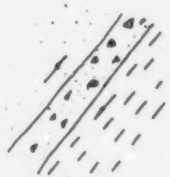
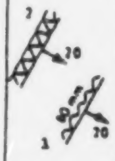
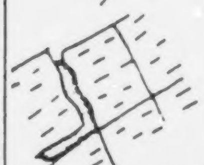
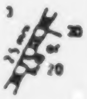
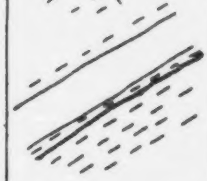
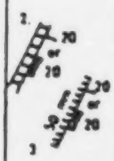
REMARKS:

NO	DIST.	TYPE	DIP DIR	DIP ANG	SIZE	END	RUFF	INFL 1 2	APPET WIDTH	FILL [illegible]	WTR	WAV	LITHO	HDN	SPARE	SPARE

RECORD SHEET

TYPE OF DISCONTINUITY

FIG. 2D.2

APPEARANCE	NAME	SYMBOL	DESCRIPTION
	Bedding		Layered or parallel arrangement of mineral grains, giving rise to planar anisotropy in the substance
	Joint		Discontinuity or crack across which rock usually has little tensile strength, may be planar, curved or irregular and open or filled by soil or rock substance which acts as cement; surfaces may be rough or smooth
	Shear Plane (fault)[1]		Near planar surface along which movement has taken place; surfaces may be polished or slickensided and may have a film or coating of CLAY up to 2mm thick.
	Sheared Zone / Seam (fault)[1]		Zone, with roughly parallel almost planar boundaries of rock substance cut by closely spaced (often < 50mm) shear planes and/or joints. The shear planes are usually smooth or slickensided and curved, intersecting to divide the mass into lenticular or wedge shaped blocks. Rock properties
	Crushed Zone / Seam (fault)[1]		Zone with roughly parallel almost planar boundaries, composed of disoriented, usually angular, fragments of the host rock substance. The fragments may be of CLAY, SILT, SAND, or GRAVEL sizes or mixtures of these. Soil properties
	Infill Zone / Seam		Zone of any shape but commonly with roughly parallel, planar boundaries. Formed by migration of soil into rock cavity or defect.
	Extremely Weathered Zone / Seam		Zone of any shape but commonly with roughly parallel, planar boundaries often with gradational boundaries. Formed by weathering of the rock substance in place.

NOTES

1 In the geological sense

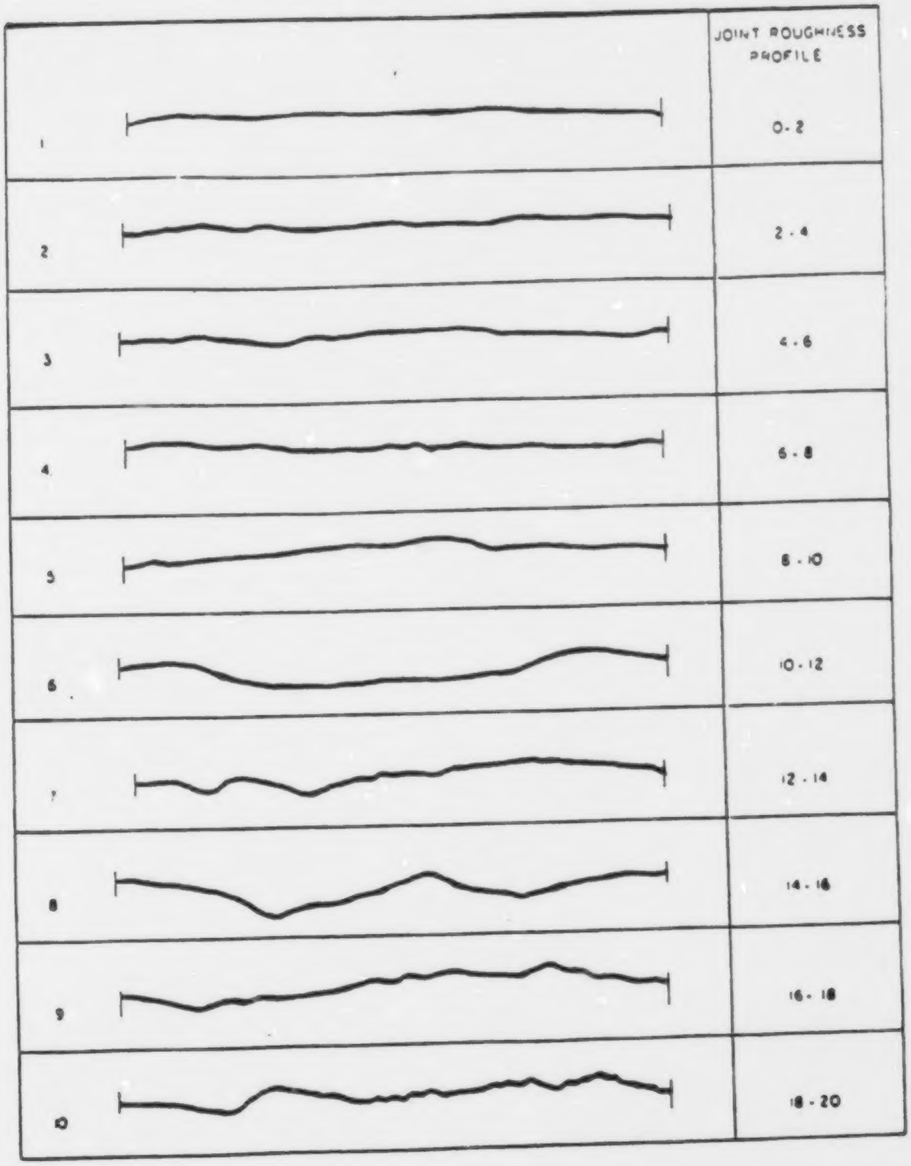
2 To scale

3 Thickness indicated

ROUGHNESS PROFILES

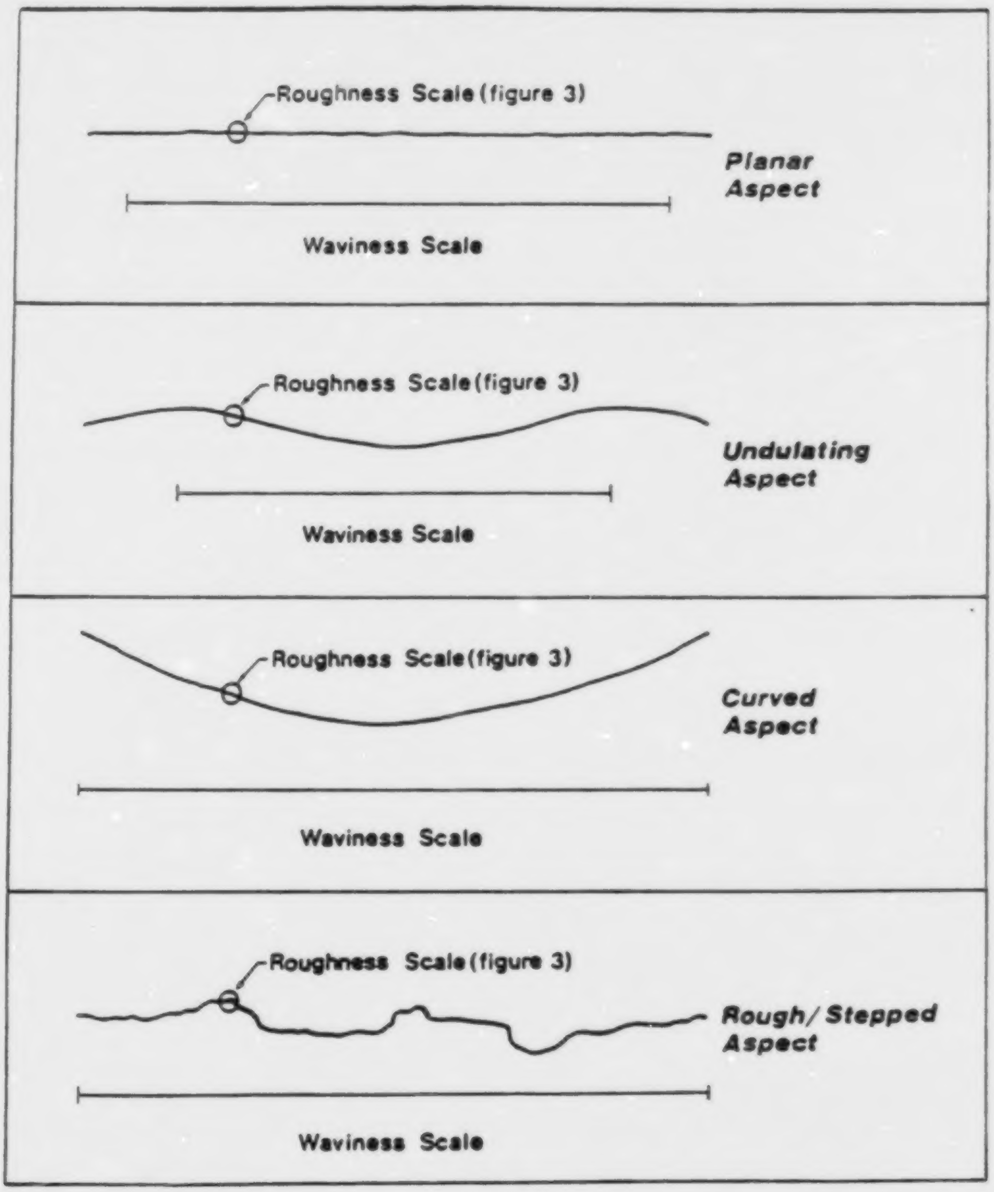
(AFTER BARTON,1977)

FIG. 2D.3


JOINT ROUGHNESS PROFILE
1
0 - 2
2
2 - 4
3
4 - 6
4
6 - 8
5
8 - 10
6
10 - 12
7
12 - 14
8
14 - 16
9
16 - 18
10
18 - 20

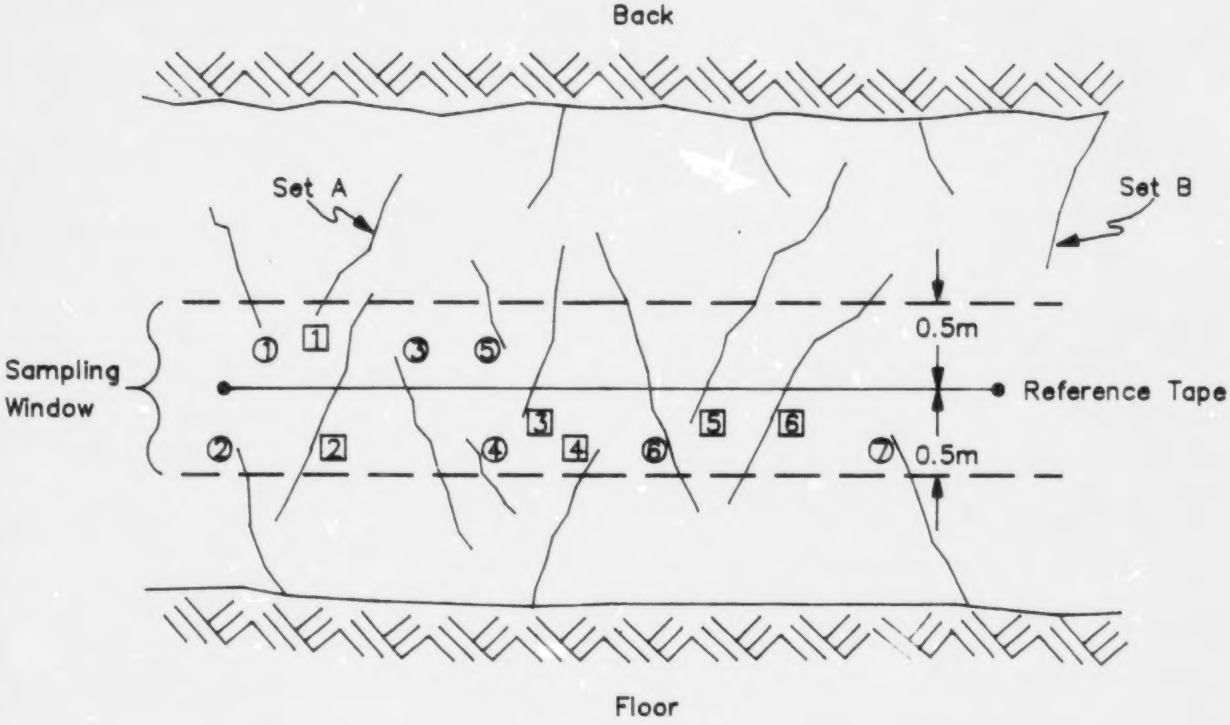
CLASSIFICATION OF JOINT WAVINESS

FIG. 2D.4


Roughness Scale (figure 3)
Planar Aspect
Waviness Scale
Roughness Scale (figure 3)
Undulating Aspect
Waviness Scale
Roughness Scale (figure 3)
Curved Aspect
Waviness Scale
Roughness Scale (figure 3)
Rough/Stepped Aspect
Waviness Scale

SAMPLING

FIG. 2D.5

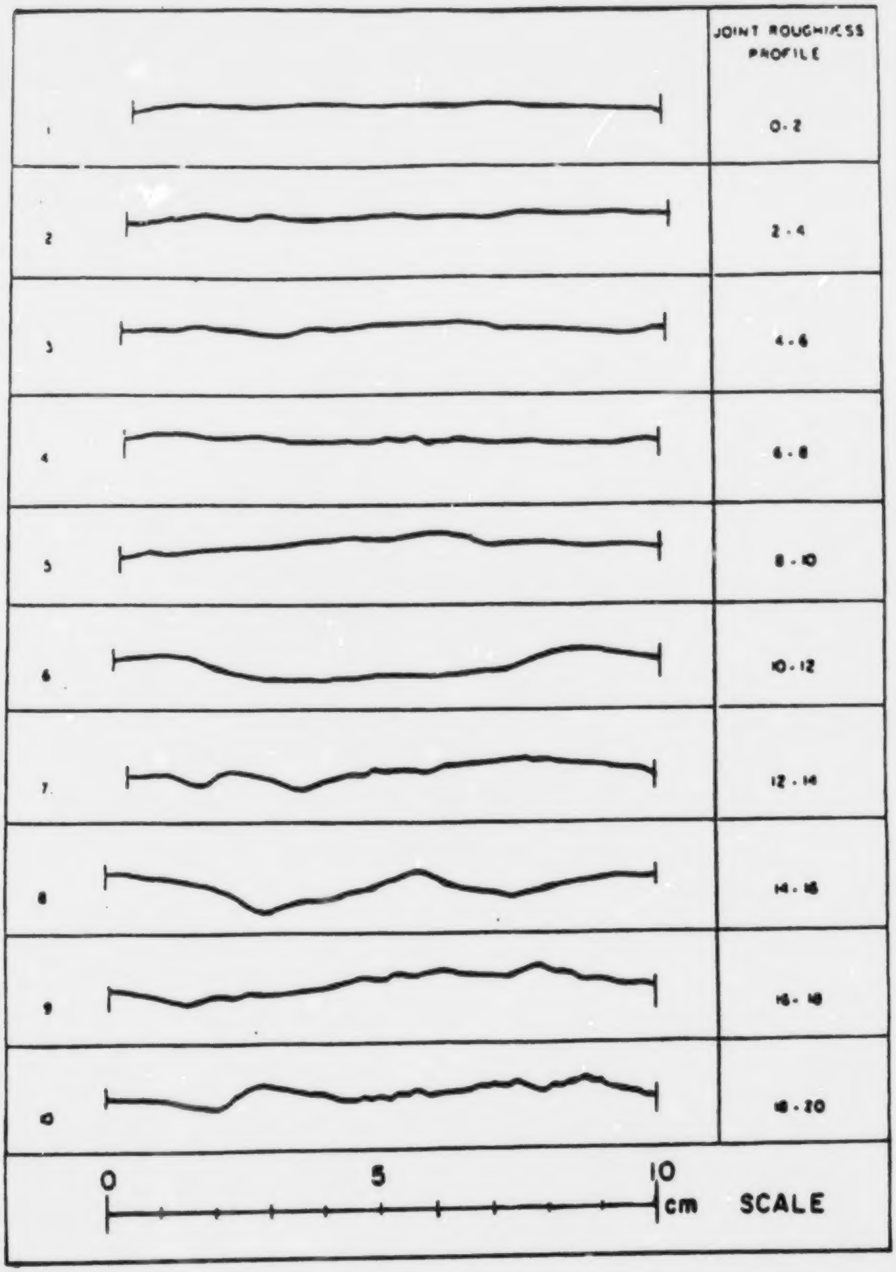

Back
Set A
Set B
①
1
③
⑤
0.5m
Sampling Window
Reference Tape
3
5
6
②
2
④
4
⑥
⑦
0.5m
Floor

ONLY COUNT JOINTS THAT FALL WITHIN THE SAMPLING WINDOW

For example window intersects 6 joints belonging to set A and 7 joints belonging to set B.

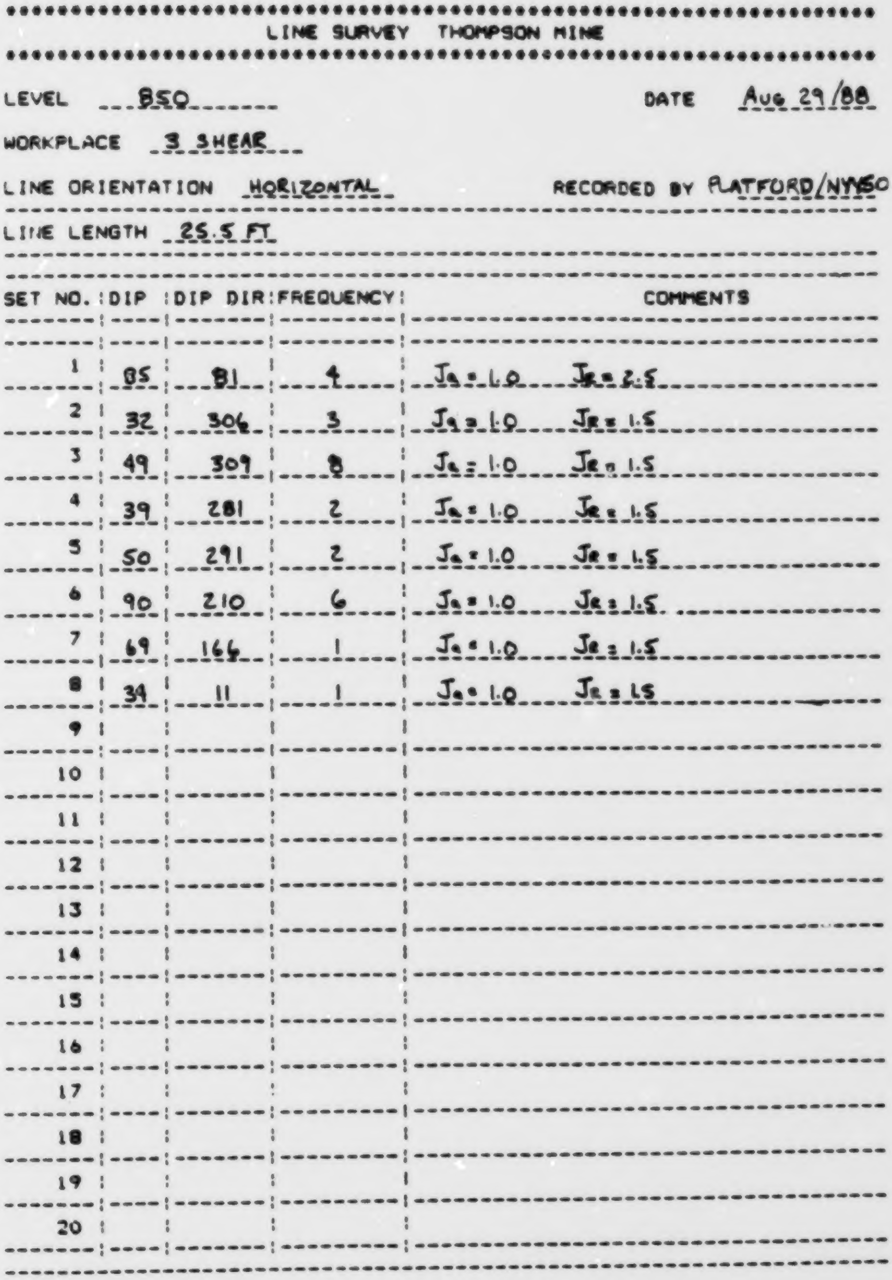
ROUGHNESS PROFILES

FIG. 2D.6



LINE SURVEY RECORD

FIG. 2D.7



LINE SURVEY THOMPSON MINE

LEVEL 850

DATE Aug 29/88

WORKPLACE 3 SHEAR

LINE ORIENTATION HORIZONTAL

RECORDED BY PLATFORD/NYYSO

LINE LENGTH 25.5 FT

SET NO.	DIP	DIP DIR	FREQUENCY	COMMENTS
1	85	81	4	$J_a = 1.0$ $J_r = 2.5$
2	32	306	3	$J_a = 1.0$ $J_r = 1.5$
3	49	309	8	$J_a = 1.0$ $J_r = 1.5$
4	39	281	2	$J_a = 1.0$ $J_r = 1.5$
5	50	291	2	$J_a = 1.0$ $J_r = 1.5$
6	90	210	6	$J_a = 1.0$ $J_r = 1.5$
7	69	166	1	$J_a = 1.0$ $J_r = 1.5$
8	34	11	1	$J_a = 1.0$ $J_r = 1.5$
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

APPENDIX E

CASE HISTORY FOR SECTION SKETCHING

E1	CASE HISTORY FOR SECTION SKETCHING DETAIL
E2 TO E29	FIGURES NO. 2E.1 TO 2E.28

APPENDIX E - CASE HISTORY FOR SECTION SKETCHING

The Figures E1 to E28, contain an example of 'section sketching' for the 330 stope. A glossary is given below:

LEGEND

>	DIRECTION OF MOVEMENT
F/H	FOOTWALL OR HANGING WALL HAUNCH
*	CRACKS ACROSS BED PLANES
~	SEPARATION OF BED PLANES
S OR /	SHEARS
C / S	CLEAN AND SMOOTH
+	OVAL SHAPE

SEVERETY OF CONDITIONS

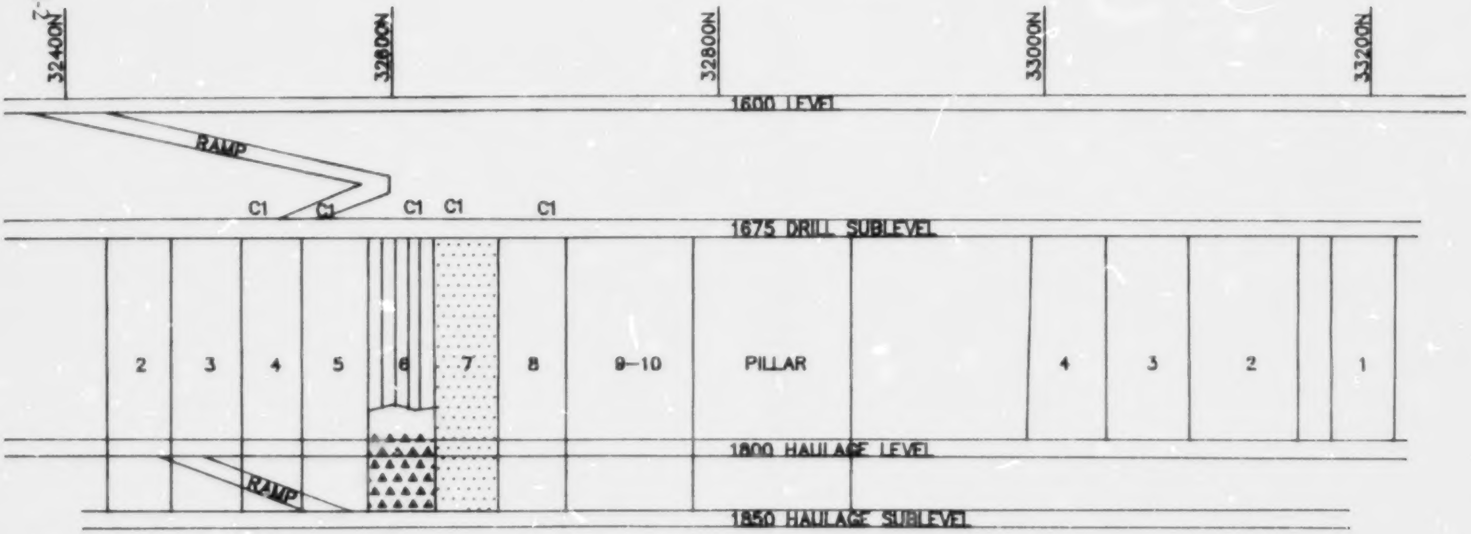
1	MILD OR JUST NOTICEABLE
2	MODERATE
3	SEVERE

The drawings are in chronological order. Section sketching should show the change in conditions with progress of the stoping face. It can be seen that this objective is being met. The example is included purely to justify the statements made in the section on philosophy. The section sketching gives a very good evaluation of the conditions of the stoping area and will be invaluable in the subsequent back-analysis.

SECTION SKETCHING

FIG. 2E.1

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
C1
C1
C1
C1
C1
1675 DRILL SUBLEVEL
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 6HW
AUGUST 27, 1985 – AFTER BLAST 7
– GROUND CONDITIONS – MINOR CRACKS IN WALLS + BACKS
– HOLES – 1 ITH HOLE SHOWED STRESS
– FIELD INSTRUMENTATION
  – TO AUG 23 ALL STRESS METERS STABLE
  – AFTER BLAST 7 STRESS METERS DECREASED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

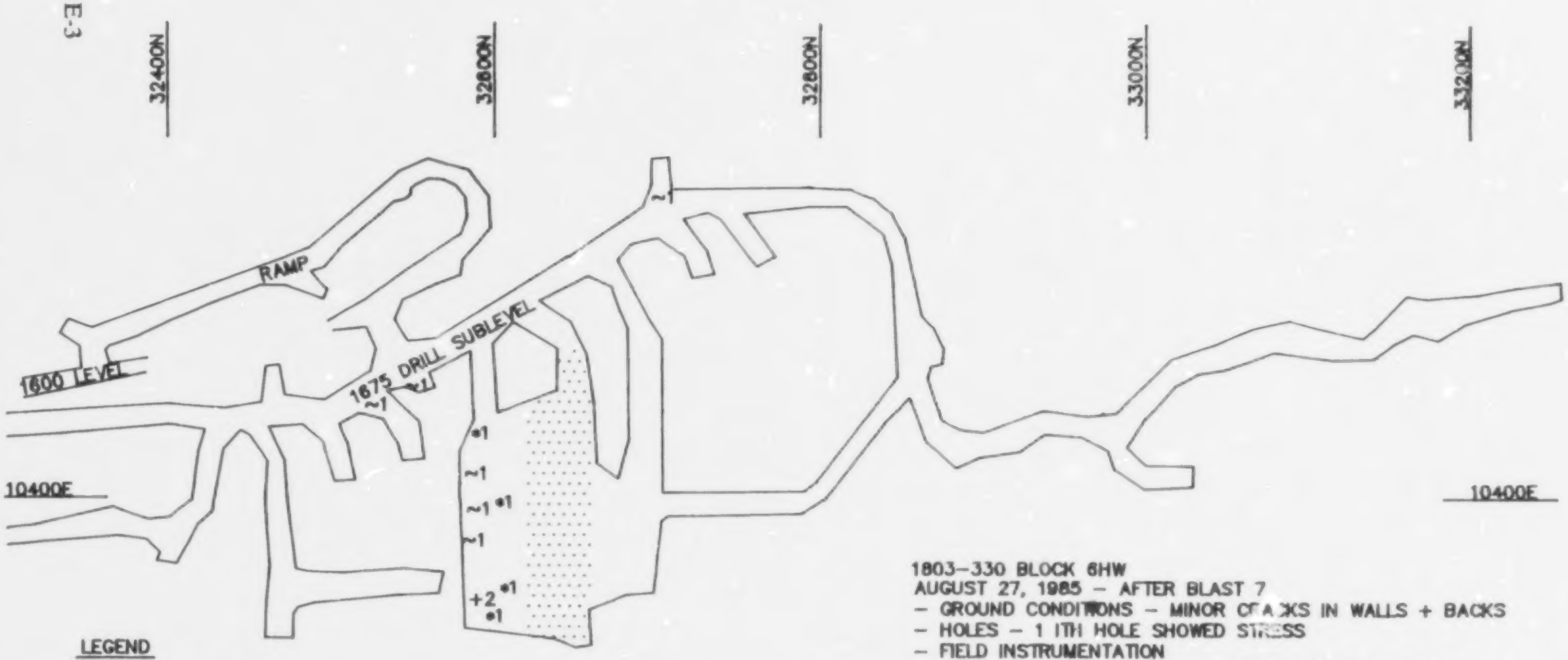
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.2

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32800N
32800N
33000N
33200N
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
~1
~1
~1
•1
~1
~1 •1
~1
+2 •1
•1
10400E
10400E

1803–330 BLOCK 6HW
AUGUST 27, 1985 – AFTER BLAST 7
– GROUND CONDITIONS – MINOR CRACKS IN WALLS + BACKS
– HOLES – 1 ITH HOLE SHOWED STRESS
– FIELD INSTRUMENTATION
– TO AUG 23 ALL STRESS METERS STABLE
– AFTER BLAST 7 STRESS METERS DECREASED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

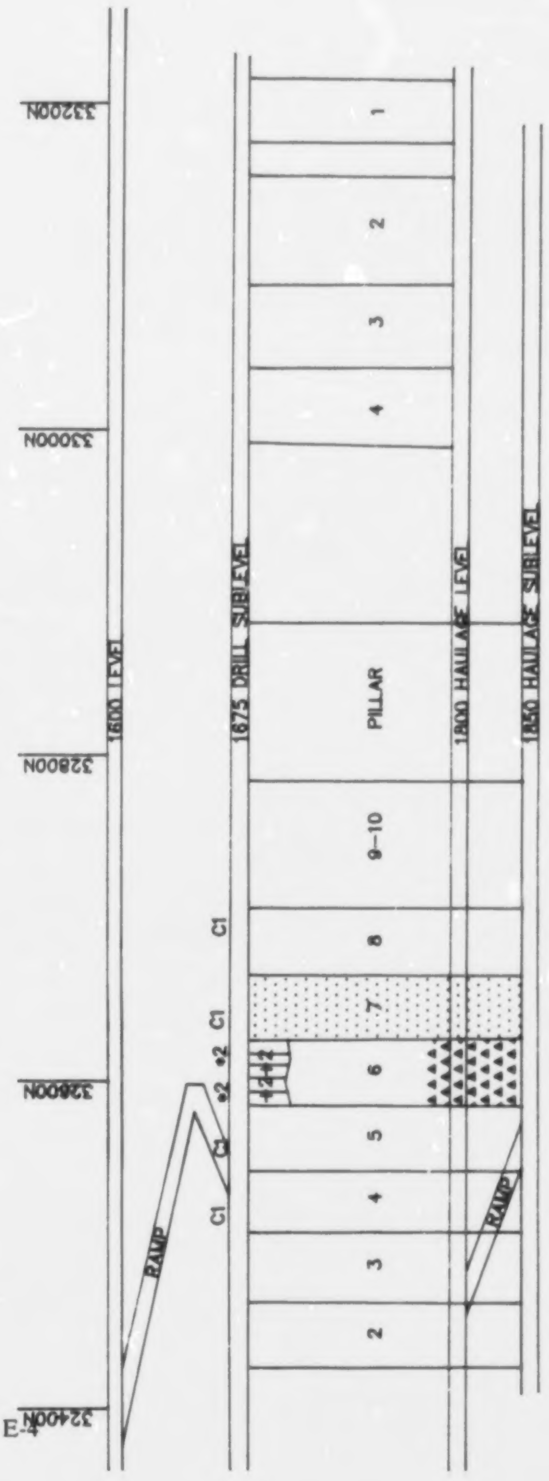
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.3

330 VBM COMPLEX
LONGITUDINAL VIEW


332000N
330000N
328000N
326000N
324000N
E-4
1600 LEVEL
1675 DRILL SUBLEVEL
1800 HAULAGE LEVEL
1850 HAULAGE SUBLEVEL
RAMP
RAMP
1
2
3
4
PILLAR
9–10
8
7
6
5
4
3
2
C1
C1
•2
•2
C1
C1
C1
+2+2

1803–330 BLOCK 6HW
SEPT 17, 1985 – AFTER BLAST 18
– GROUND CONDITIONS
  – CRACK SEPARATION ON BACK AND PILLAR WALLS
  – LIGHT LOOSE IN SCREEN
– HOLES – BLAST HOLES SHOW STRESS PERPENDICULAR TO ORE STRIKE
– FIELD INSTRUMENTATION
  – STRESS METERS SLIGHTLY INCREASED ON 1800 AT BLOCK 3

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

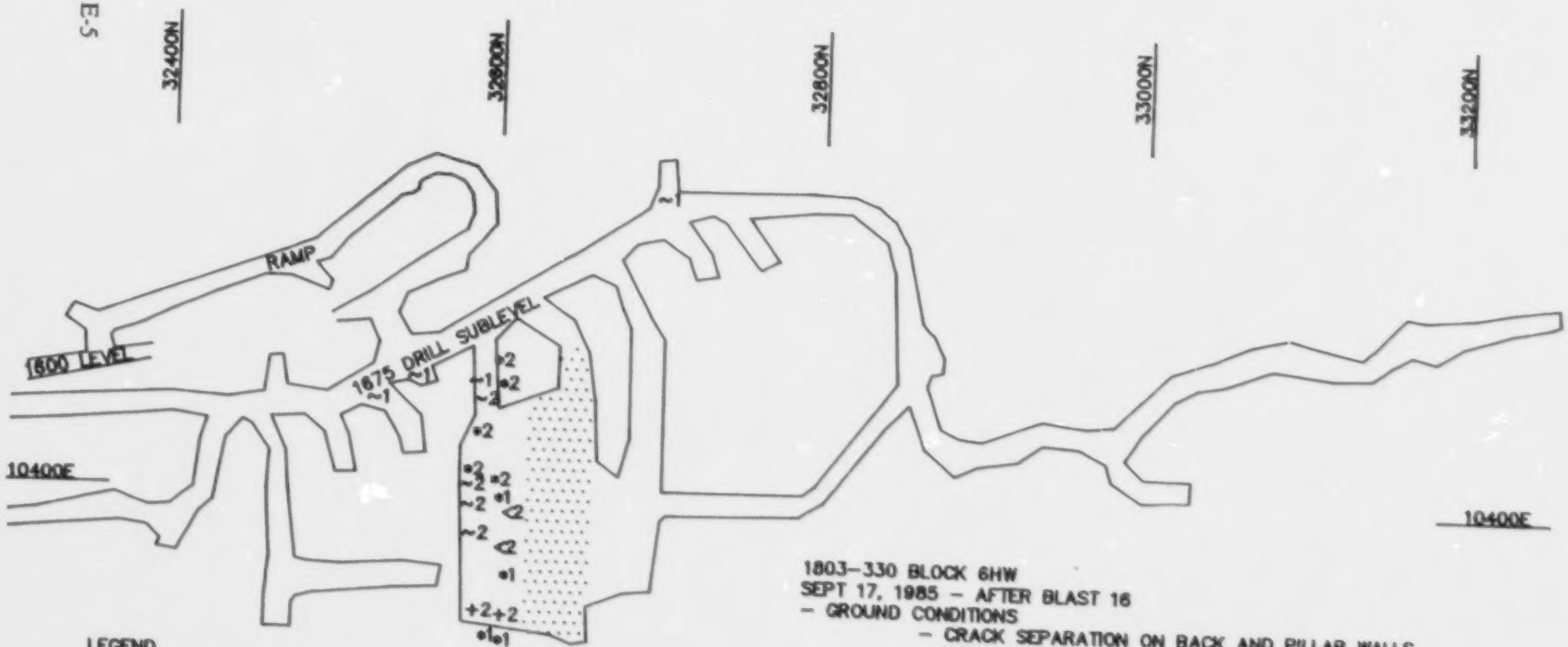
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.4

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
~1
~1
~1
•2
~1 •2
~2
•2
•2
~2 •2
~2 •1
<2
~2
<2
•1
+2+2
•1•1

1803–330 BLOCK 6HW
SEPT 17, 1985 – AFTER BLAST 16
- GROUND CONDITIONS
  - CRACK SEPARATION ON BACK AND PILLAR WALLS
  - LIGHT LOOSE IN SCREEN
- HOLES – BLAST HOLES SHOW STRESS PERPENDICULAR TO ORE STRIKE
- FIELD INSTRUMENTATION
  - STRESS METERS SLIGHTLY INCREASED ON 1800 AT BLOCK 3

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

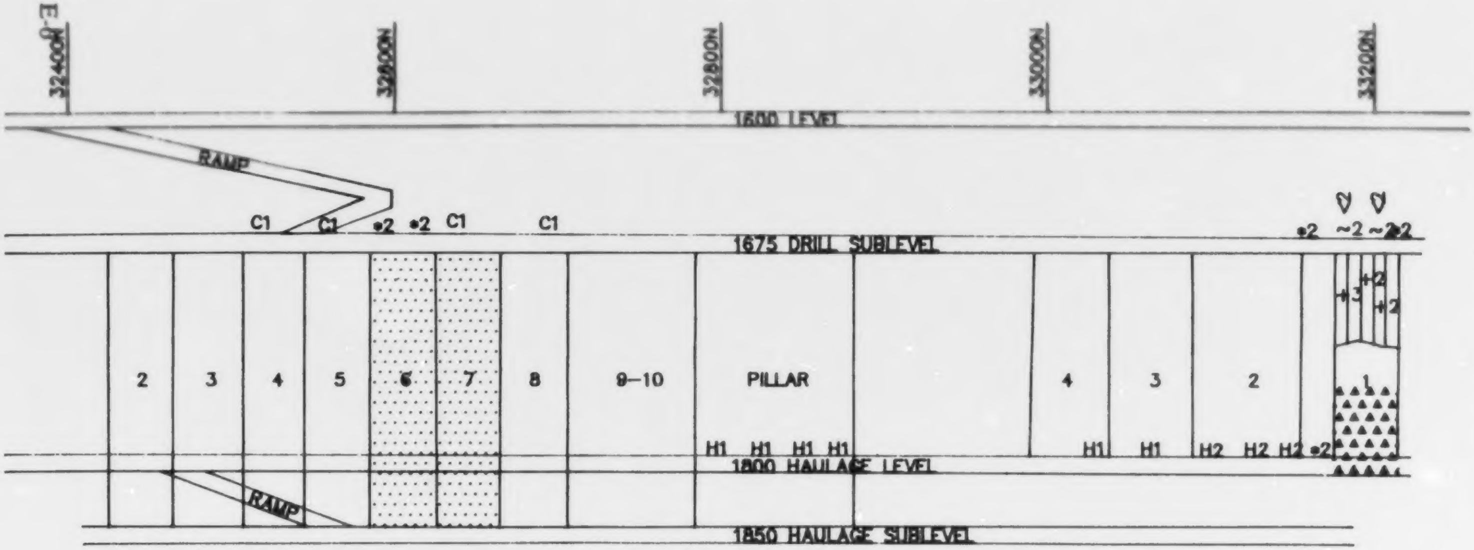
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.5

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
C1
C1
•2
•2
C1
C1
1675 DRILL SUBLEVEL
•2
~2
~2
•2
+3
+2
+2
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H1
H1
H1
H1
H1
H1
H2
H2
H2
•2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 6HW
NOV 18,1985 – DRILLING BLOCK 6FW
– BLOCK 6HW FILLING COMPLETE
– GROUND CONDITIONS – NO CHANGE
– HOLES – ROW I HOLES PUSHING INTO BLOCK 7

1803–331 BLOCK 1
NOV 13, 1985 – AFTER BLAST 14
– GROUND CONDITIONS – BACK TAKING LOAD
– SEPARATION OF BED PLANES
– HOLES – HW HOLES SQUEEZING
– ROW K ALL HOLES SEVERELY STRESSED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

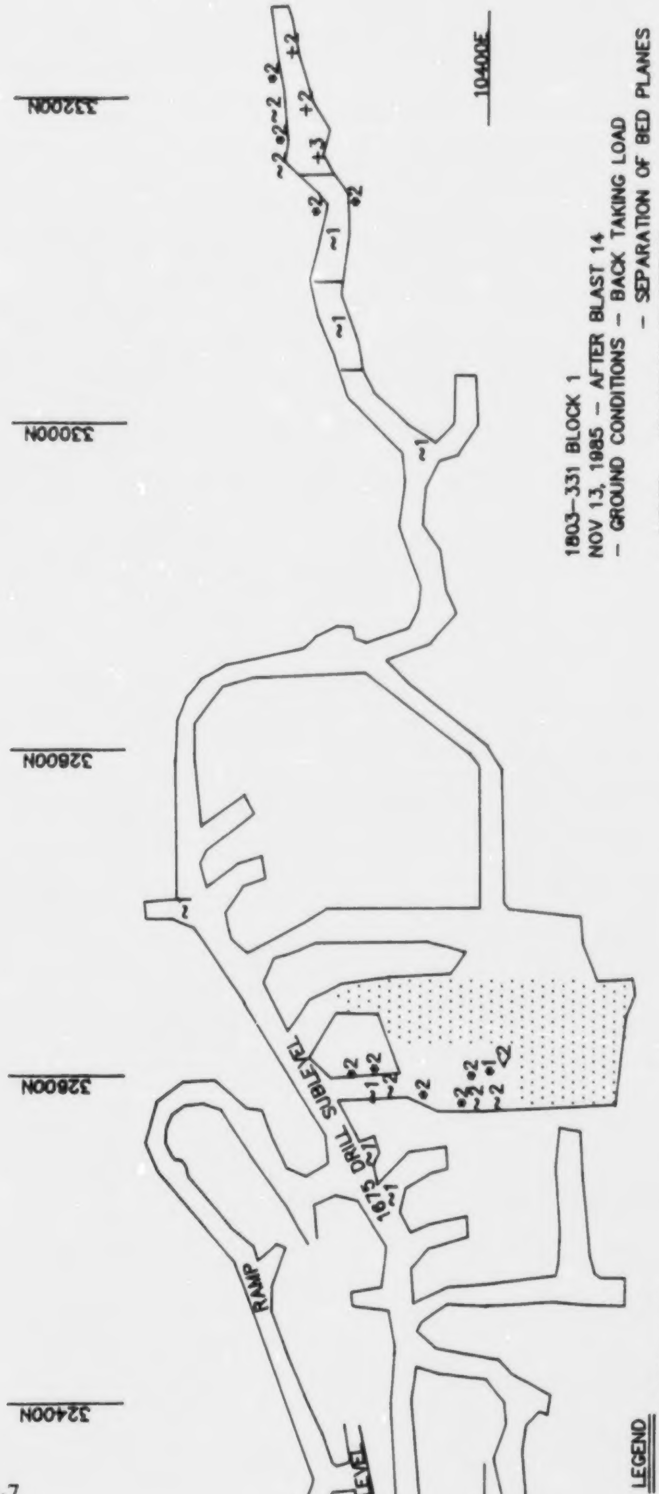
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.6

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


33200N
33000N
32800N
32600N
32400N
10400E
10400E
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
~2 •2 ~2 •2
+2 +2 +2 +3
•2 •2
~1 ~1 ~1 ~1
•2 •2 ~1 ~2 •2
•2 •2 •1 ~2 ~2 ~2
~1 ~1

1803–331 BLOCK 1
NOV 13, 1985 – AFTER BLAST 14
– GROUND CONDITIONS – BACK TAKING LOAD
– SEPARATION OF BED PLANES
– HOLES – HW HOLES SQUEEZING
– ROW K ALL HOLES SEVERELY STRESSED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

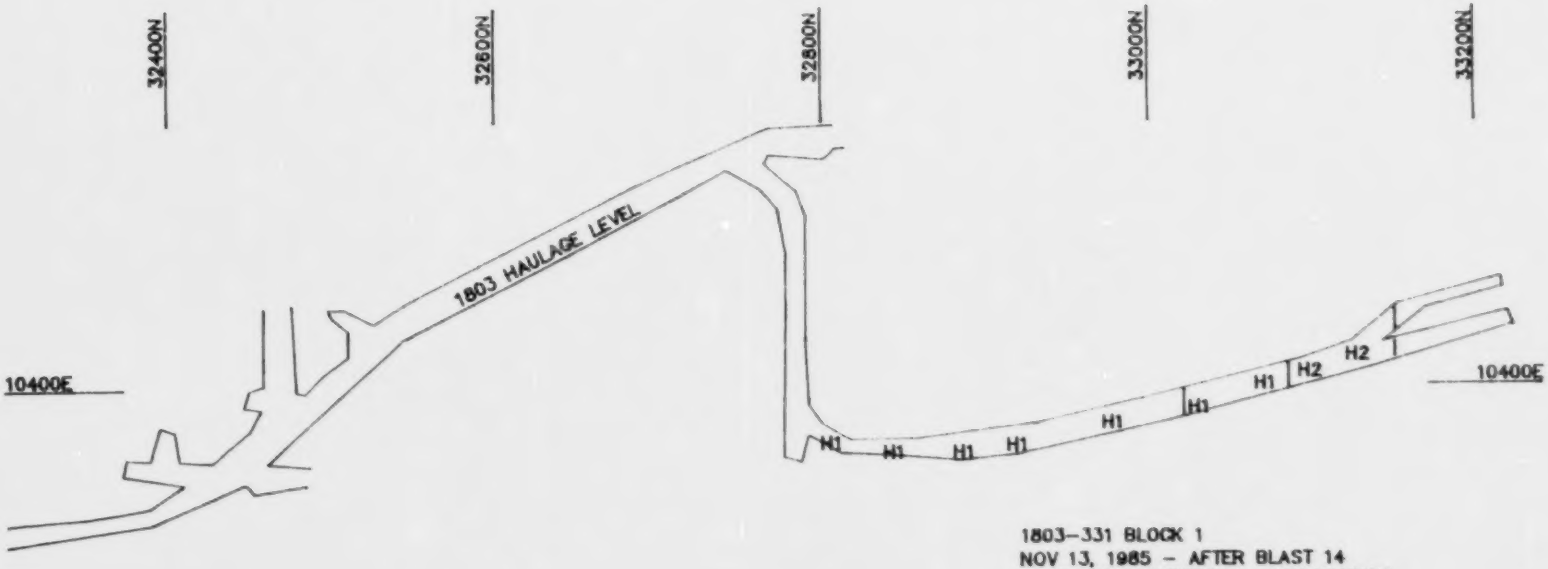
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.7

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H1
H1
H1
H1
H1
H1
H1
H2
H2

1803–331 BLOCK 1
NOV 13, 1985 – AFTER BLAST 14
– GROUND CONDITIONS – HW HAUNCH
– HOLES – HW HOLES SQUEEZING
– ROW K ALL HOLES SEVERELY STRESSED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

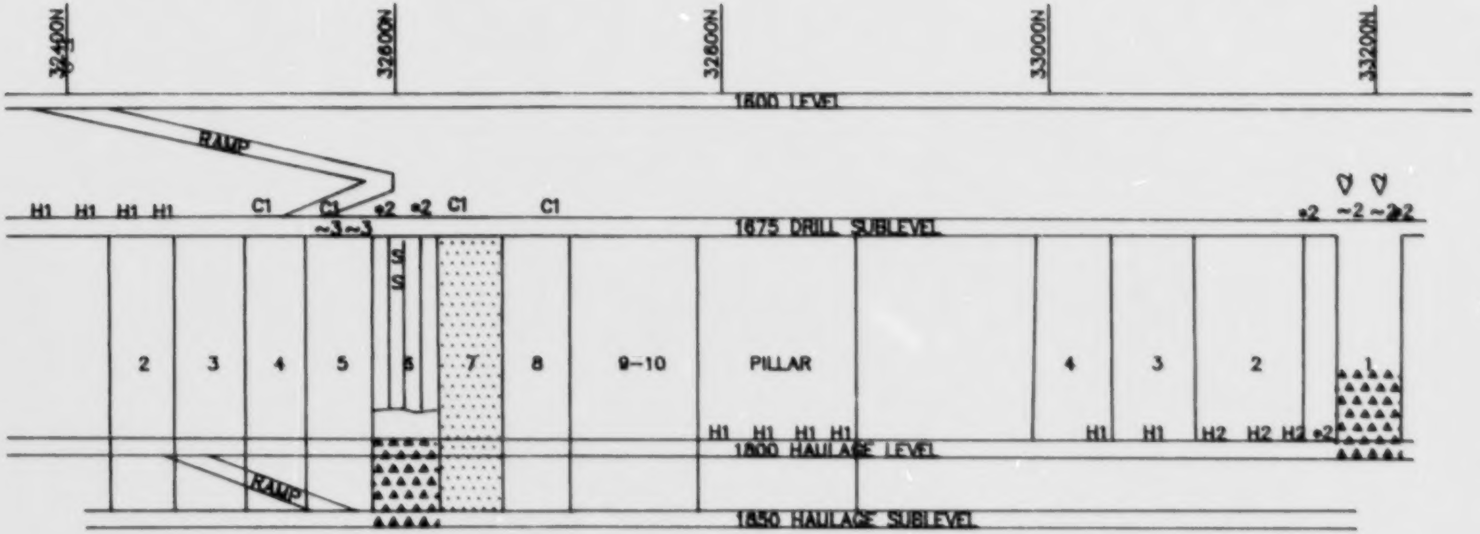
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.8

330 VBM COMPLEX
LONGITUDINAL VIEW



32400N
32600N
32800N
33000N
33200N
1800 LEVEL
RAMP
H1 H1 H1 H1
C1
C1
~3~3
•2 •2
C1
C1
S
S
•2
~2 ~2•2
1675 DRILL SUBLEVEL
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H1 H1 H1 H1
H1
H1
H2 H2 H2 •2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 6FW
DEC 5, 1985 – AFTER BLAST 6
– GROUND CONDITIONS – BLOCK 5 ACCESS SHOWS INCREASE IN BED PLANE SEPARATION (SEVERE)
– HOLES – 2 HORIZONTAL SHEARS ● 10'& 20'

1803–331 BLOCK 1
DEC 5, 1985 – AFTER DECK BLAST
– GROUND CONDITIONS – BACK SLOUGHED 2'THICK X 10'WIDE X 30'LONG
– SEPARATION OF BED PLANES
– HAULAGE – HW HAUNCH
– RECONDITIONING REQUIRED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

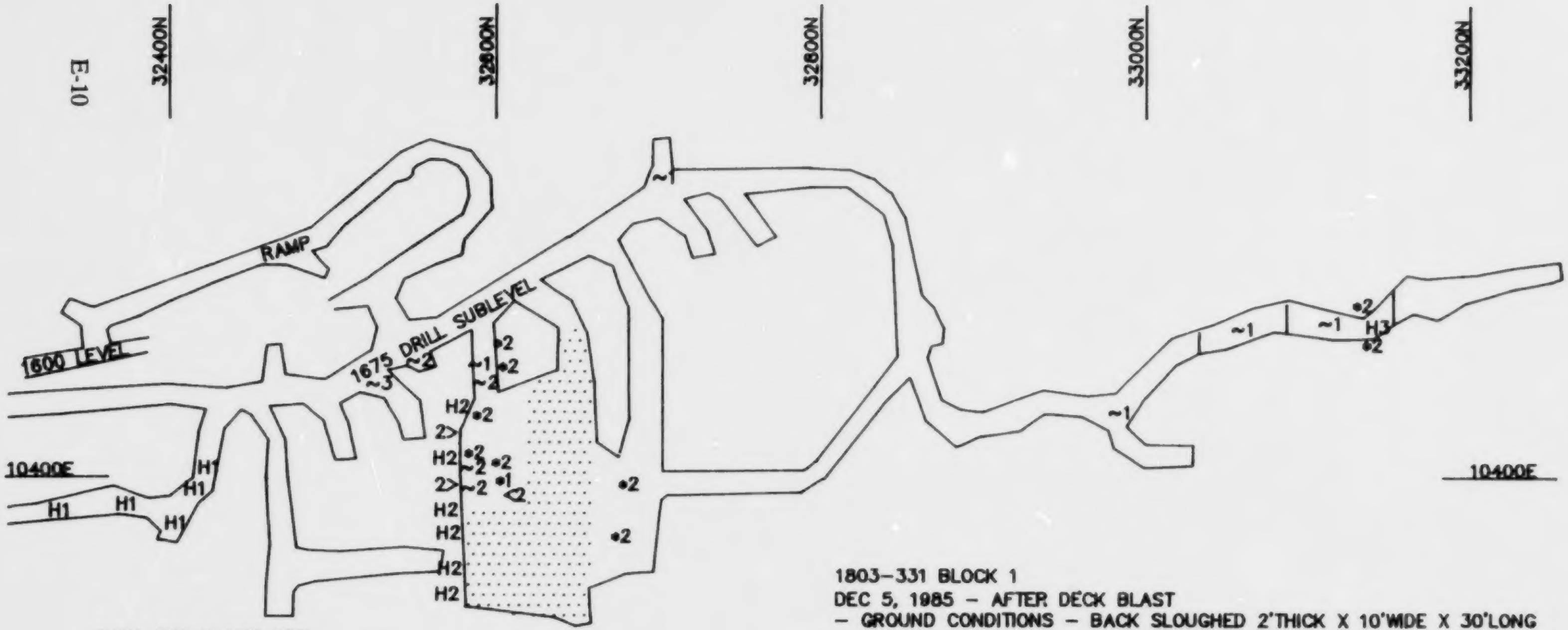
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.9

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW



32400N
32600N
32800N
33000N
33200N
10400E
10400E
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
~3
~2
~1
•2
H1
H2
H3
2>
•1

1803–330 BLOCK 6FW
DEC 5, 1985 – AFTER BLAST 6
– GROUND CONDITIONS – BLOCK 5 ACCESS SHOWS INCREASE IN BED PLANE SEPARATION (SEVERE)
– HOLES – 2 HORIZONTAL SHEARS ● 10'& 20'

1803–331 BLOCK 1
DEC 5, 1985 – AFTER DECK BLAST
– GROUND CONDITIONS – BACK SLOUGHED 2'THICK X 10'WIDE X 30'LONG
– SEPARATION OF BED PLANES

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

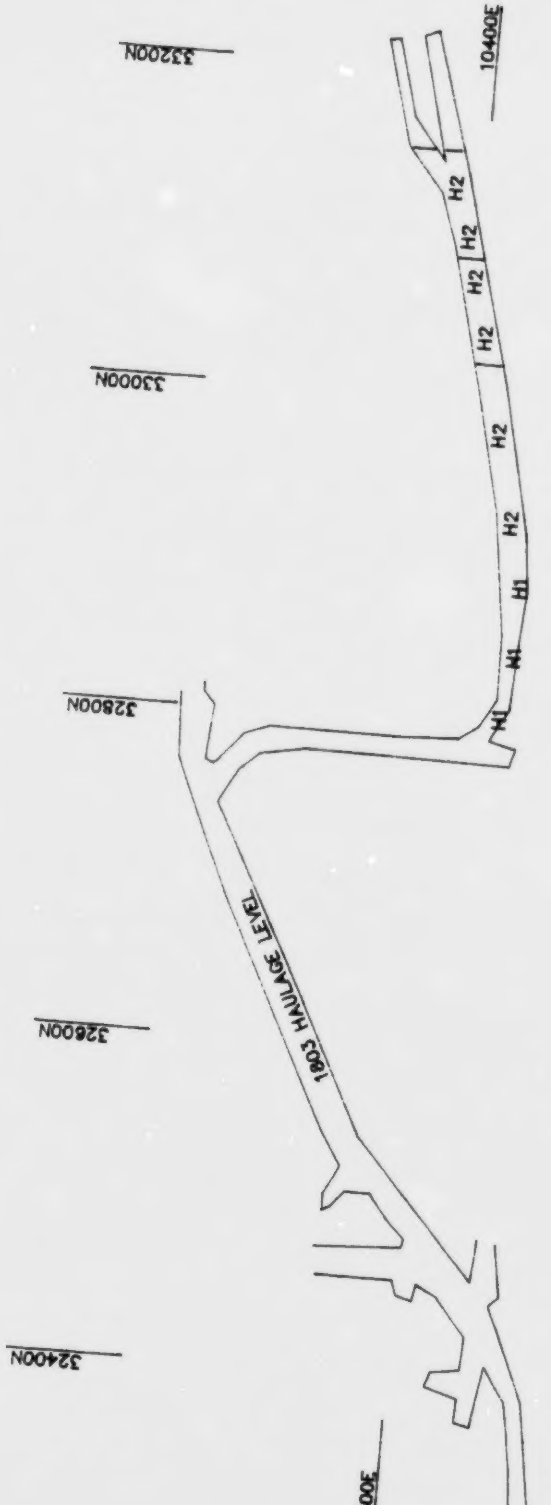
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.10

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


33200N
33000N
32800N
32600N
32400N
10400E
10400E
1803 HAULAGE LEVEL
H2
H2
H2
H2
H2
H2
H1
H1
H1

1803-331 BLOCK 1
DEC 5, 1985 – AFTER DECK BLAST
– HAULAGE GROUND CONDITIONS – SEPARATION OF BED PLANES
– HW HAUNCH
– RECONDITIONING REQUIRED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

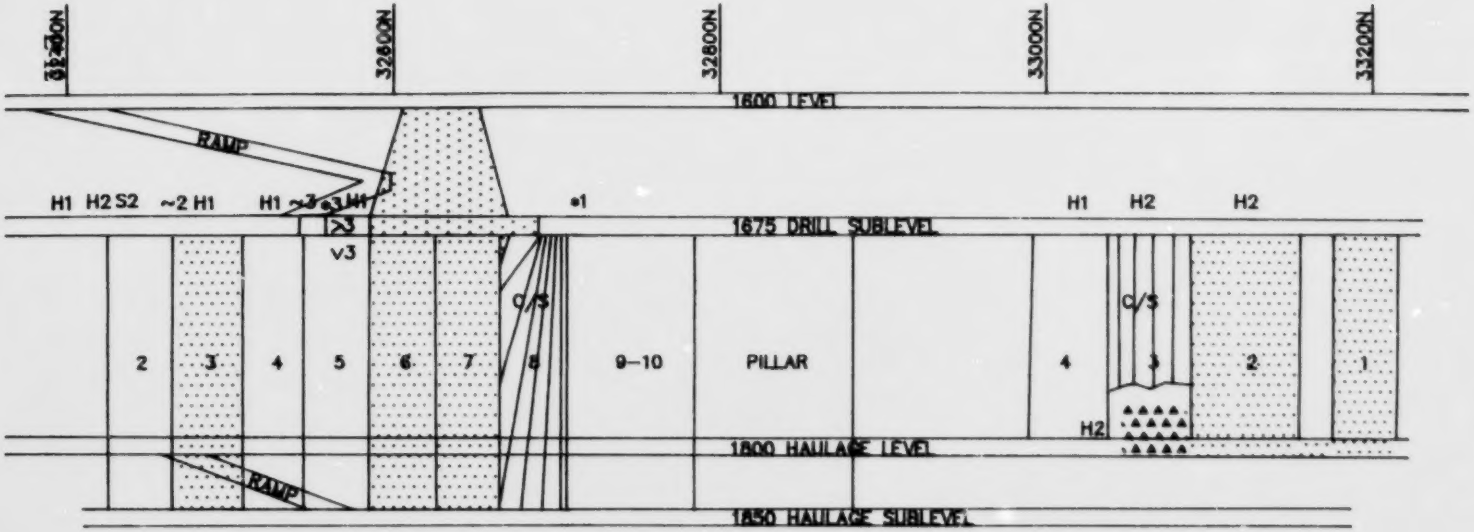
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.11

330 VBM COMPLEX
LONGITUDINAL VIEW


32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
H1 H2 S2 ~2 H1 H1 ~3 •3 H1
•1
H1 H2 H2
1675 DRILL SUBLEVEL
>3
V3
C/S
C/S
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803 – 330 BLOCK #3 TO #8 – NOV. 12/87
GROUND CONDITIONS – NO CHANGE
HOLES – ALL HOLES CLEAN AND SMOOTH
– 2 WEEKS TO BLASTING

1803 – 331 BLOCK 3 – OCT.14/87
GROUND CONDITIONS – BACK REMAINS GOOD
– H.W. AND F.W. ARE GOOD
– H.W. HAUNCH SHOWS SLIGHT SEPARATION
HOLES – THE HOLES DO NOT APPEAR OVAL BUT SHEAR CRACKING ALL AROUND AND AT DIFFERENT ELEVATIONS
– REDRILL TO CLEAN FOR BLASTING

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

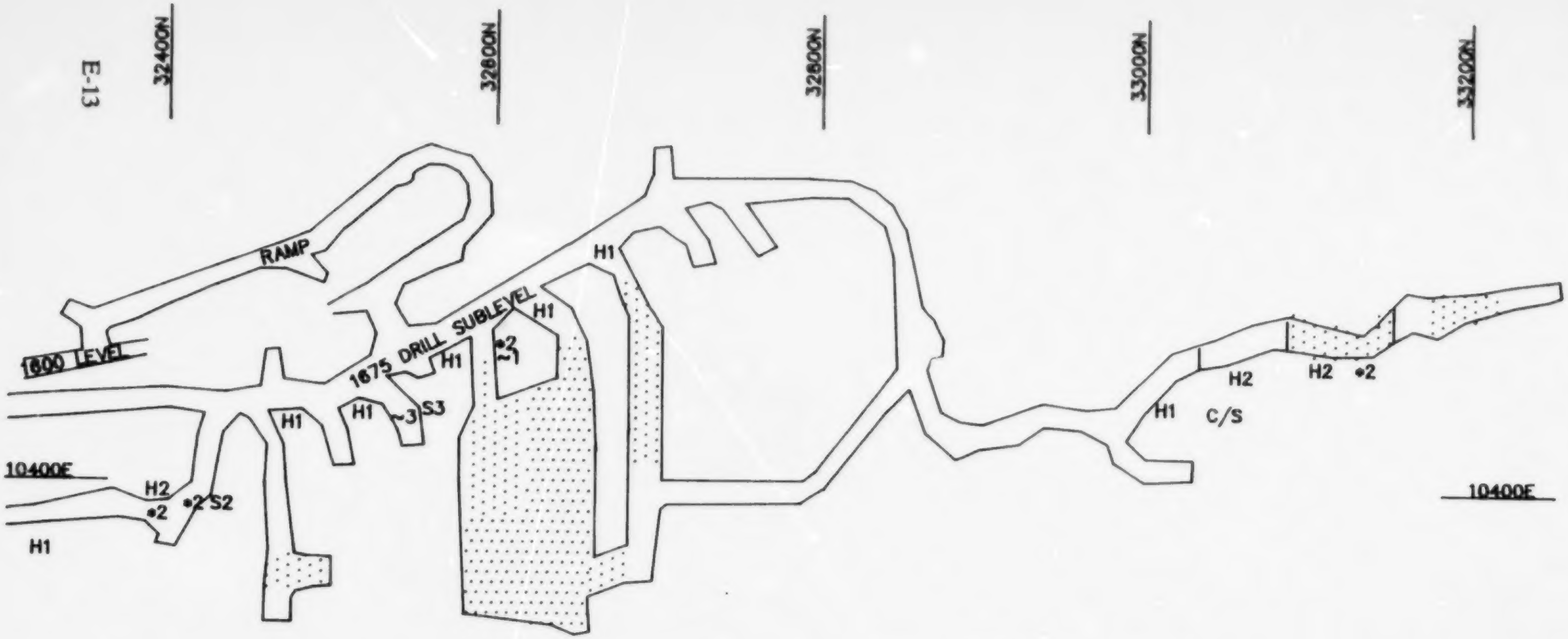
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.12

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
RAMP
1800 LEVEL
1675 DRILL SUBLEVEL
10400E
10400E
H1
H1
H1
H1
H1
H1
H1
H2
H2
H2
•2
•2 S2
~3 S3
•2
~1
•2
C/S

1803 – 330 BLOCK #3 TO #8 – NOV. 12/87
GROUND CONDITIONS – NO CHANGE
HOLES – ALL HOLES CLEAN AND SMOOTH
– 2 WEEKS TO BLASTING

1803 – 331 BLOCK 3 – OCT.14/87
GROUND CONDITIONS – BACK REMAINS GOOD
– H.W. AND F.W. ARE GOOD
– H.W. HAUNCH SHOWS SLIGHT SEPARATION
HOLES – THE HOLES DO NOT APPEAR OVAL BUT SHEAR CRACKING
ALL AROUND AND AT DIFFERENT ELEVATIONS
– REDRILL TO CLEAN FOR BLASTING

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

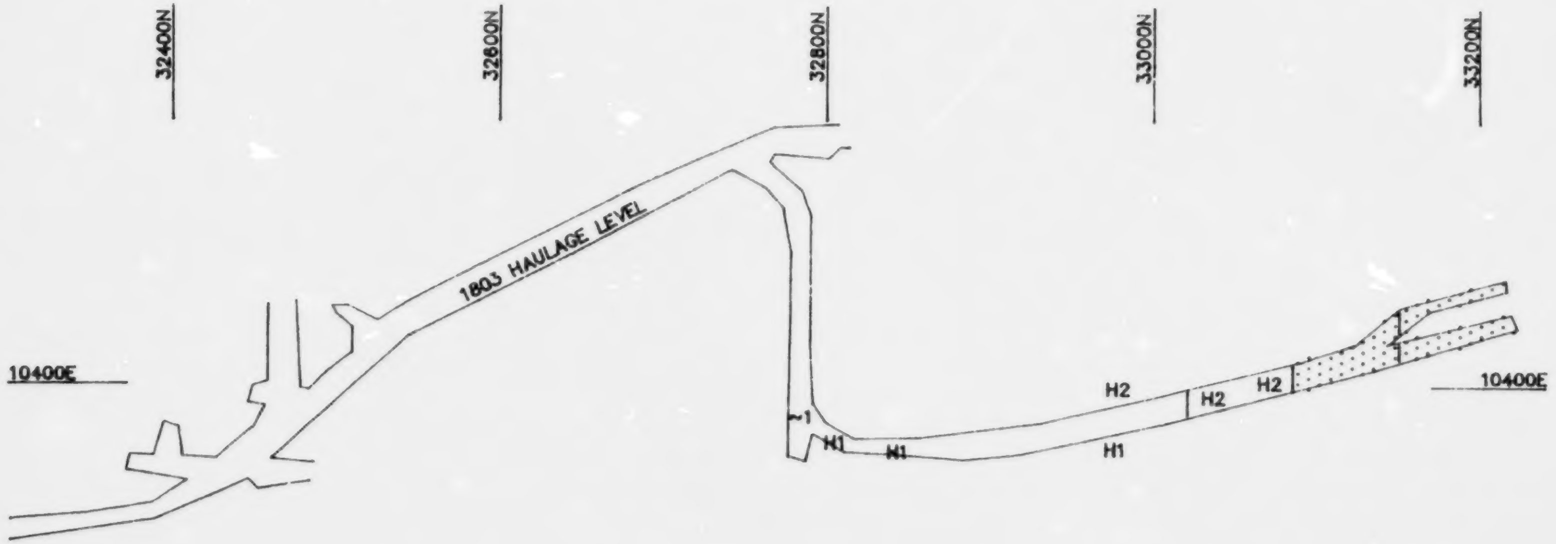
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.13

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
~1
H1
H1
H1
H2
H2
H2

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

Severity of Conditions

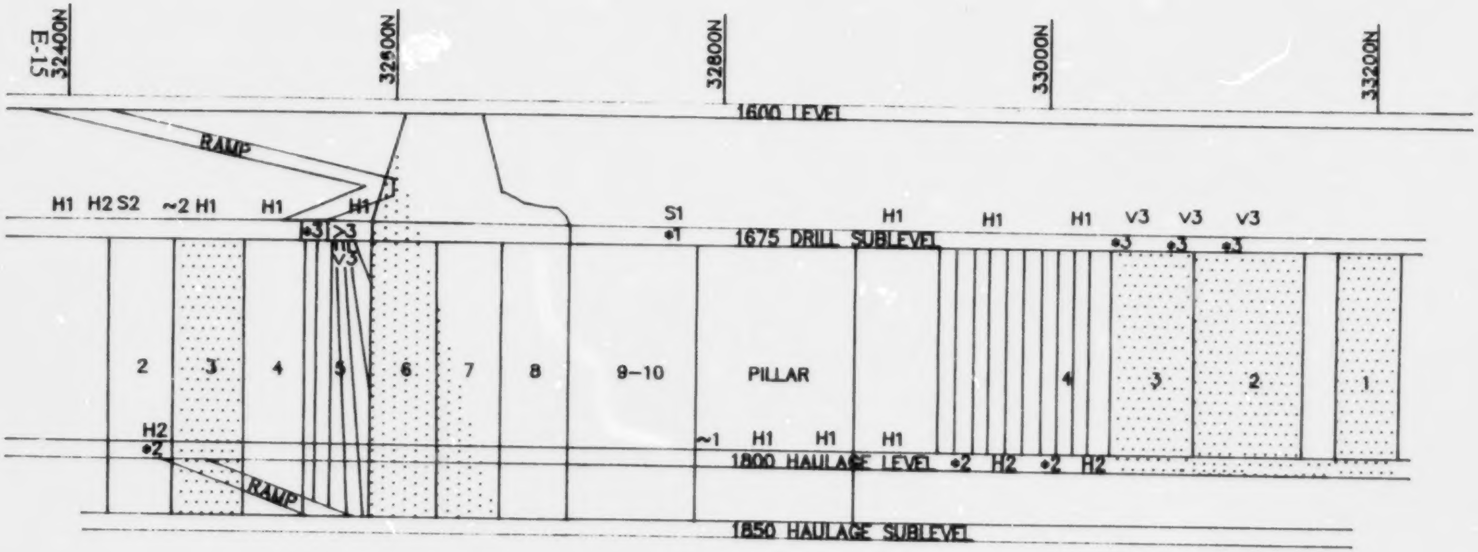
1	Mild or Just Noticeable
2	Moderate
3	Severe

1803 – 331 BLOCK 3 – OCT.14/87
GROUND CONDITIONS – BACK REMAINS GOOD
– H.W. AND F.W. ARE GOOD
– H.W. HAUNCH SHOWS SLIGHT SEPARATION
HOLES – THE HOLES DO NOT APPEAR OVAL BUT SHEAR CRACKING
ALL AROUND AND AT DIFFERENT ELEVATIONS
– REDRILL TO CLEAN FOR BLASTING

SECTION SKETCHING

FIG. 2E.14

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
H1 H2 S2 ~2 H1
H1
H1
•3
>3
H1
V3
S1
•1
1675 DRILL SUBLEVEL
H1
H1
H1
V3 V3 V3
•3 •3 •3
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H2
•2
~1 H1 H1 H1
1800 HAULAGE LEVEL
•2 H2 •2 H2
RAMP
1850 HAULAGE SUBLEVEL

1803 – 330 BLOCKS 3 TO 8 – MAR.4/87
LAST BLAST OF BLOCK 8 WAS JAN.10/87

GROUND CONDITIONS – ONLY CHANGE WAS IN #8 ACCESS. AT 5 FT AND 65 FT FROM THE VOID, A CRACK APPEARED AROUND THE DRIFT PERIMETER.

HOLES – WHILE BLASTING BLOCK 8 HOLES REMAINED CLEAN AND SMOOTH.

– BLOCK 5 HOLES CLEAN AND SMOOTH BUT BOTTOM 30 FT TIGHT WHEN PULLING RODS.

1803 – 331 BLOCKS 4 AND 3 – MAR.4/87
PRIOR TO BLASTING.

GROUND CONDITIONS – JUST NORTH OF #4 TO #2 THE BACK APPEARS TO HAVE SLOUGHED 1 TO 3 FT.

– THE WALLS IN SAME AREA ARE SHOWING VERTICAL CRACKS AND MAY FALL INTO SLOPE.

HOLES – ALL HOLES OBSERVED WERE CLEAN AND SMOOTH EXCEPT ROW H – HOLE 1, PUSHING IN AT 30FT.

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

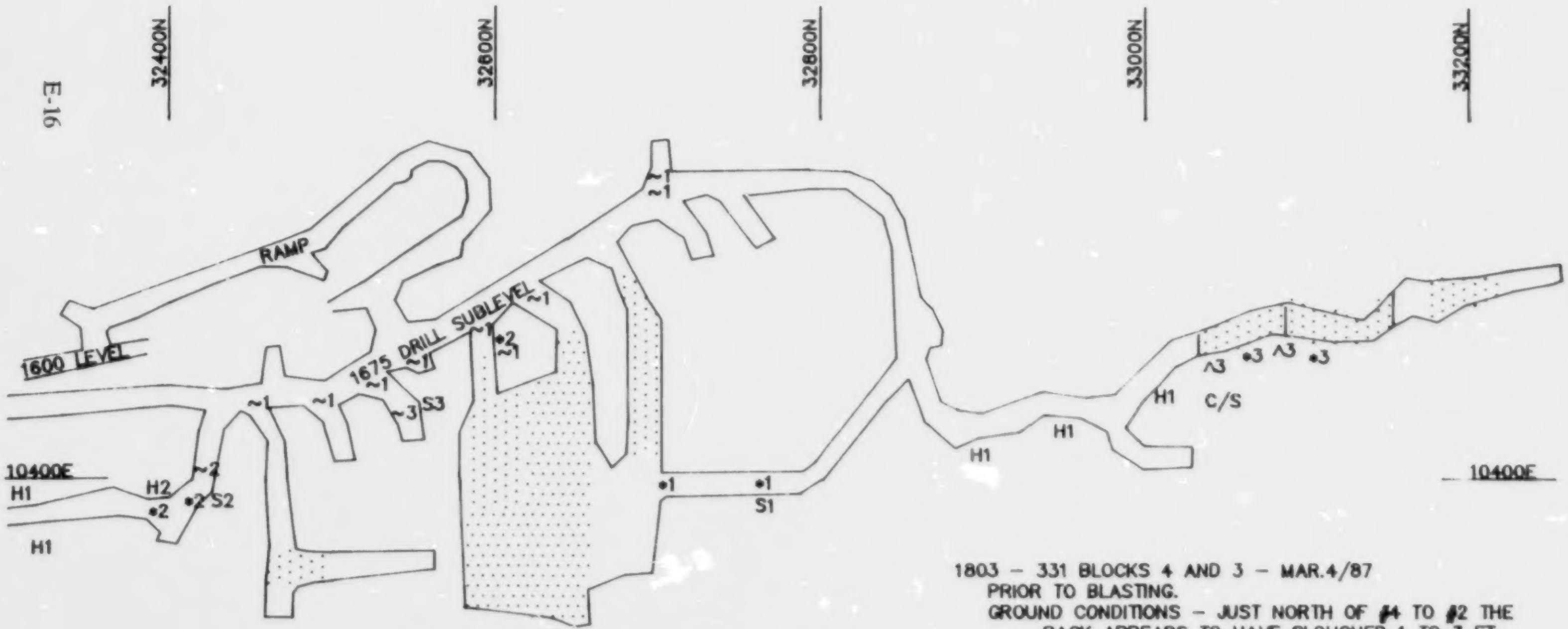
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.15

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
10400E
10400E
H1
H1
H2
•2
•2
S2
~2
~1
~1
~3
S3
~1
~1
~1
•2
~1
~1
~1
•1
•1
S1
H1
H1
H1
C/S
^3
•3
^3
•3

1803 – 330 BLOCKS 3 TO 8 – MAR.4/87
LAST BLAST OF BLOCK 8 WAS JAN.10/87

GROUND CONDITIONS – ONLY CHANGE WAS IN #8 ACCESS. AT 5 FT AND 65 FT FROM THE VOID, A CRACK APPEARED AROUND THE DRIFT PERIMETER.

HOLES – WHILE BLASTING BLOCK 8 HOLES REMAINED CLEAN AND SMOOTH.
– BLOCK 5 HOLES CLEAN AND SMOOTH BUT BOTTOM 30 FT TIGHT WHEN PULLING RODS.

1803 – 331 BLOCKS 4 AND 3 – MAR.4/87
PRIOR TO BLASTING.

GROUND CONDITIONS – JUST NORTH OF #4 TO #2 THE BACK APPEARS TO HAVE SLOUGHED 1 TO 3 FT.
– THE WALLS IN SAME AREA ARE SHOWING VERTICAL CRACKS AND MAY FALL INTO SLOPE.

HOLES – ALL HOLES OBSERVED WERE CLEAN AND SMOOTH EXCEPT ROW H – HOLE 1, PUSHING IN AT 30FT.

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

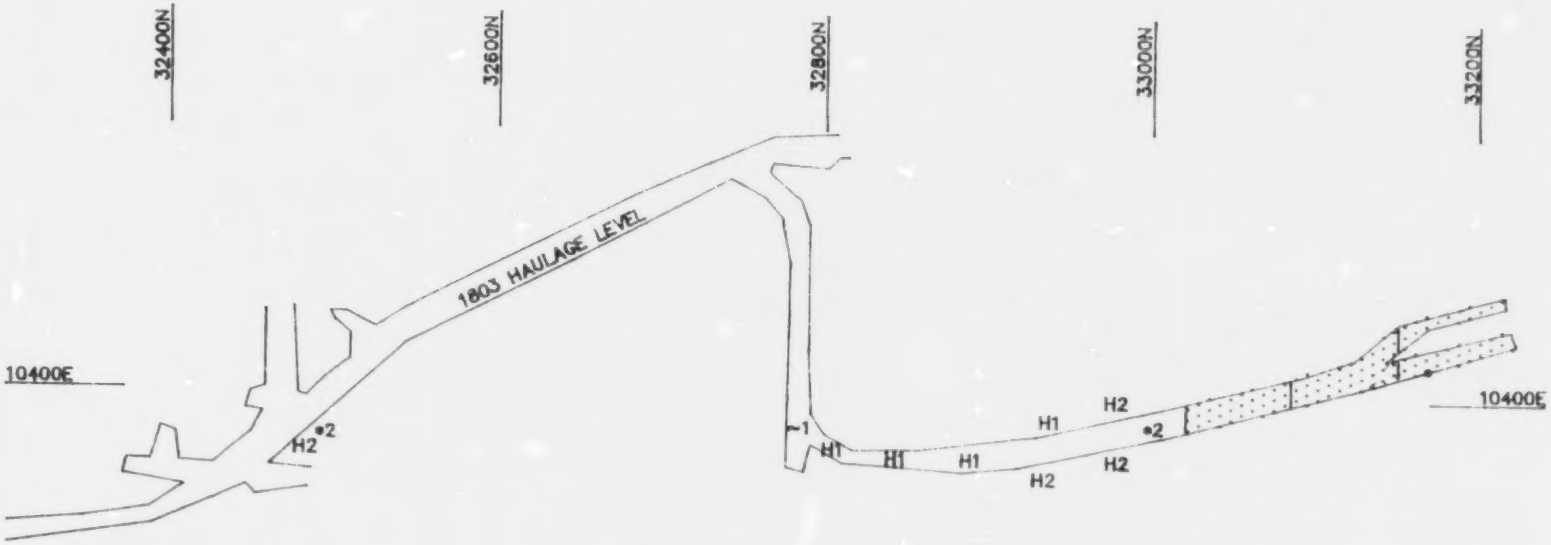
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.16

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H2
•2
~1
H1
H1
H1
H1
H2
H2
H2
•2
H2

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

Severity of Conditions

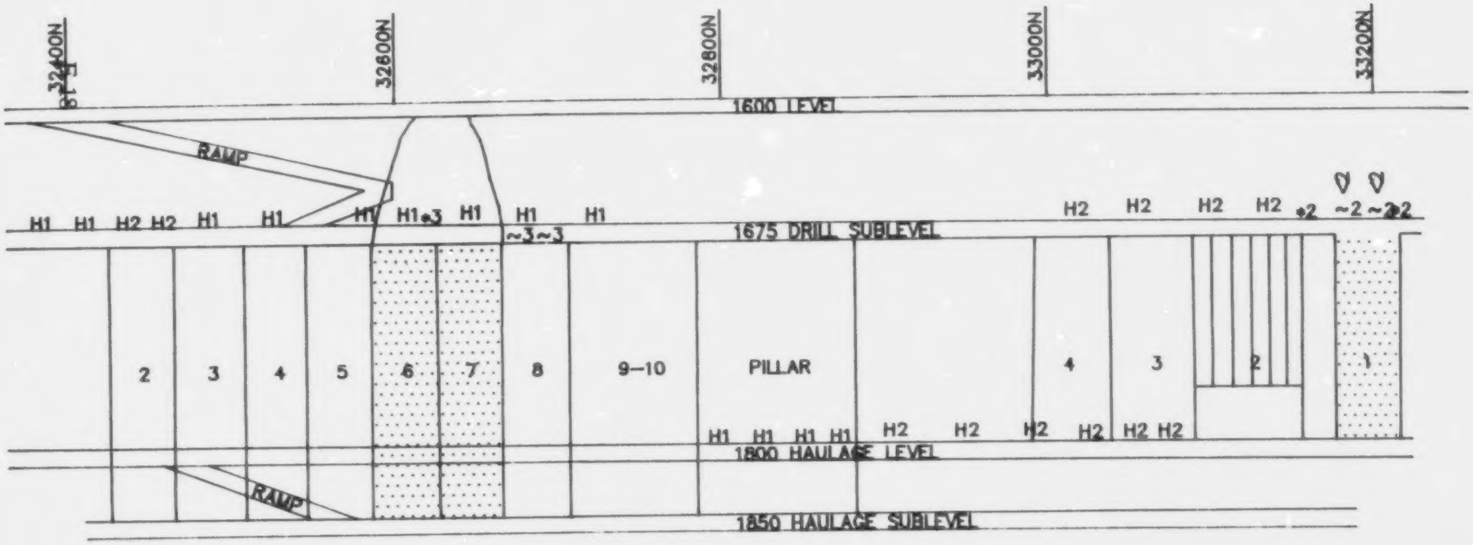
1	Mild or Just Noticeable
2	Moderate
3	Severe

1803 – 331 BLOCKS 4 AND 3 – MAR.4/87
PRIOR TO BLASTING.
GROUND CONDITIONS – JUST NORTH OF #4 TO #2 THE BACK APPEARS TO HAVE SLOUGHED 1 TO 3 FT.
– THE WALLS IN SAME AREA ARE SHOWING VERTICAL CRACKS AND MAY FALL INTO SLOPE.
HOLES – ALL HOLES OBSERVED WERE CLEAN AND SMOOTH EXCEPT ROW H – HOLE 1, PUSHING IN AT 30FT.

SECTION SKETCHING

FIG. 2E.17

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
F-18
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
H1 H1 H2 H2 H1 H1 H1 H1•3 H1 H1 H1
~3~3
H2 H2 H2 H2 •2 ~2 ~2•2
1675 DRILL SUBLEVEL
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H1 H1 H1 H1 H2 H2 H2 H2 H2 H2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 6FW

APR 7, 1986
GROUND CONDITIONS
- BLOCK 6FW FILLED
- MOVEMENT IN BLOCK 5 ACCESS HAS STOPPED

1803–331 BLOCK 2
APR 7, 1986 – AFTER BLAST 7
GROUND CONDITIONS
- PROBLEM WITH HW HOLES PLUGGING AT 30 & 80 FT AFTER EACH BLAST THUS HAVING TO CLEAN

LEGEND

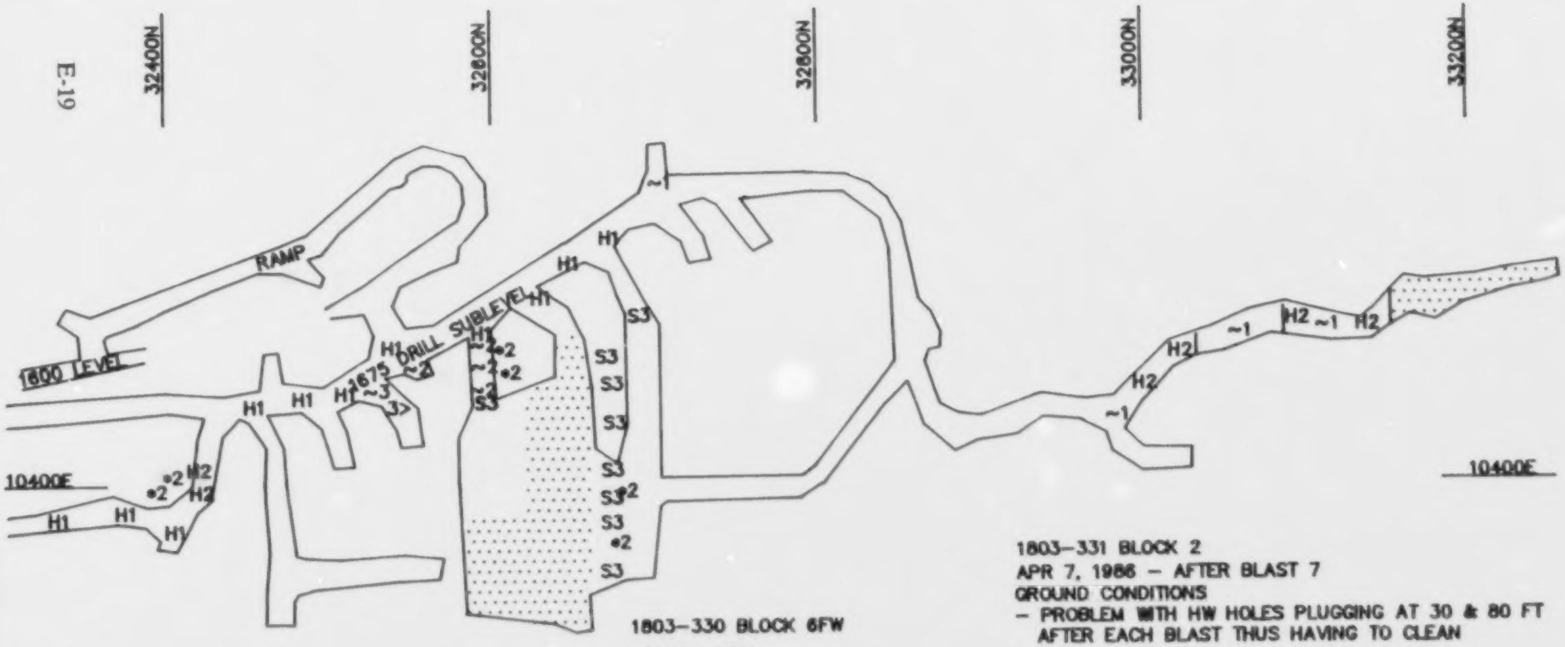
>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

FIG. 2E.18

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
10400E
10400E
H1
H1
H1
H1
H1
H1
H1
H1
H1
H2
H2
H2
H2
H2
H2
•2
•2
•2
•2
•2
•2
~1
~1
~1
~1
~2
~2
~2
~3
3>
S3
S3
S3
S3
S3
S3
S3
S3
S3

1803–331 BLOCK 2
APR 7, 1986 – AFTER BLAST 7
GROUND CONDITIONS
– PROBLEM WITH HW HOLES PLUGGING AT 30 & 80 FT AFTER EACH BLAST THUS HAVING TO CLEAN

1803–330 BLOCK 6FW

APR 7, 1986
GROUND CONDITIONS
– BLOCK 6FW FILLED
– MOVEMENT IN BLOCK 5 ACCESS HAS STOPPED

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

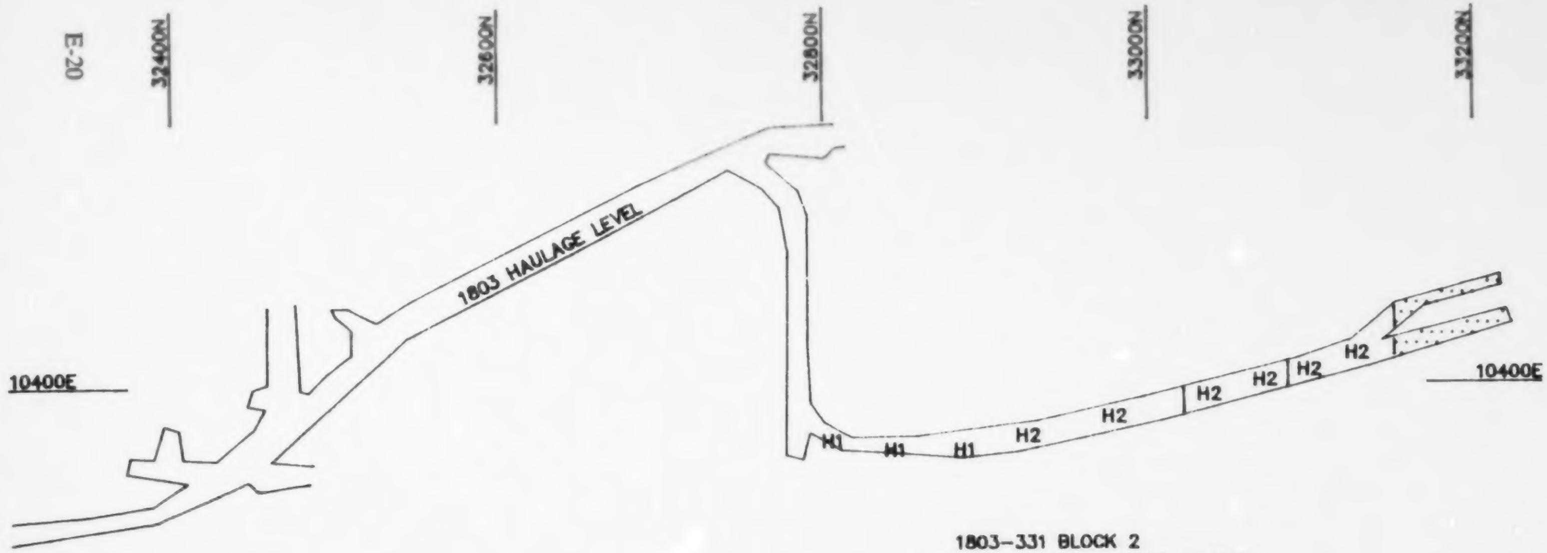
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.19

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H1
H1
H1
H2
H2
H2
H2
H2
H2

1803–331 BLOCK 2
APR 7, 1986 – AFTER BLAST 7
GROUND CONDITIONS
– PROBLEM WITH HW HOLES PLUGGING AT 30 & 80 FT AFTER EACH BLAST THUS HAVING TO CLEAN
– 1800 HAULAGE HAS NOT CHANGED FROM JAN 21, 1986

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

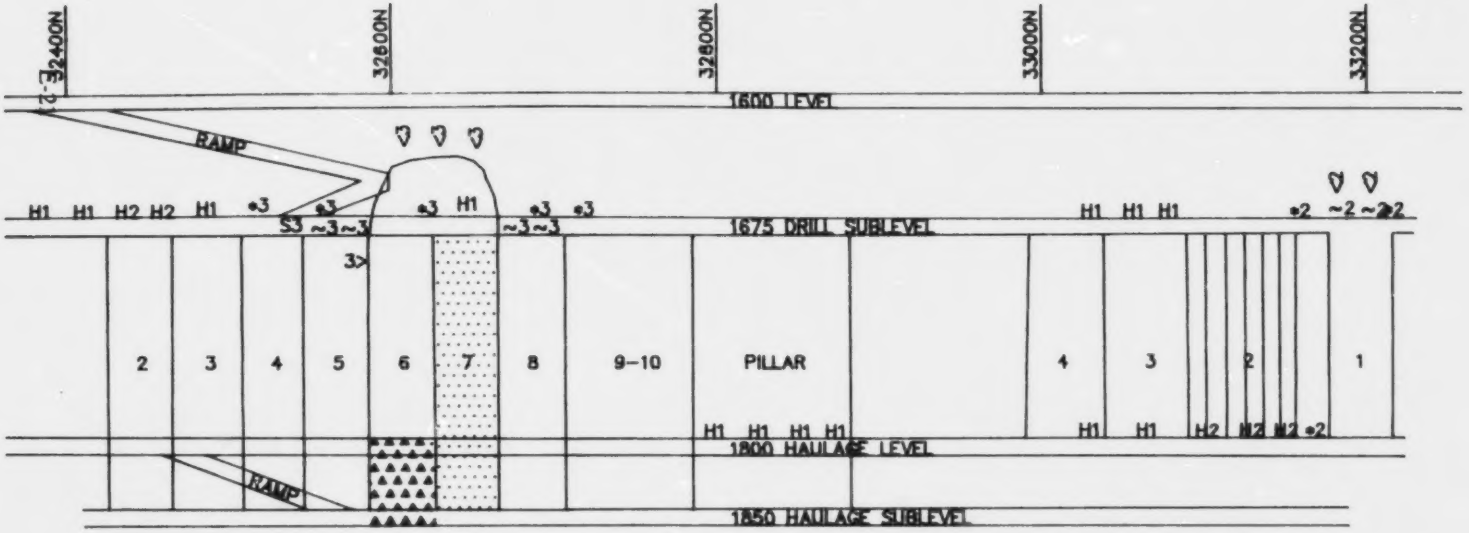
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.20

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
1675 DRILL SUBLEVEL
1800 HAULAGE LEVEL
1850 HAULAGE SUBLEVEL
RAMP
H1 H1 H2 H2 H1 •3 S3 •3 ~3~3 •3 H1 ~3~3 •3 •3
H1 H1 H1 •2 ~2 ~2 •2
3>
2 3 4 5 6 7 8 9–10 PILLAR 4 3 2 1
H1 H1 H1 H1 H1 H1 H2 H2 H2 •2

1803–330 BLOCK 6FW

DEC 23, 1985 – AFTER DECK BLAST
GROUND CONDITIONS
- BACK CAVED UP AND OVER BLOCK 7
- MOVEMENT ON THE ORE/FW CONTACT TOWARD BLOCK 6 IN BLOCK 5 ACCESS
- PILLAR BETWEEN BLOCK 7 & 8 DETERIORATING

1803–331 BLOCK 1
DEC 23, 1985 – NO CHANGE SINCE DEC 5

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

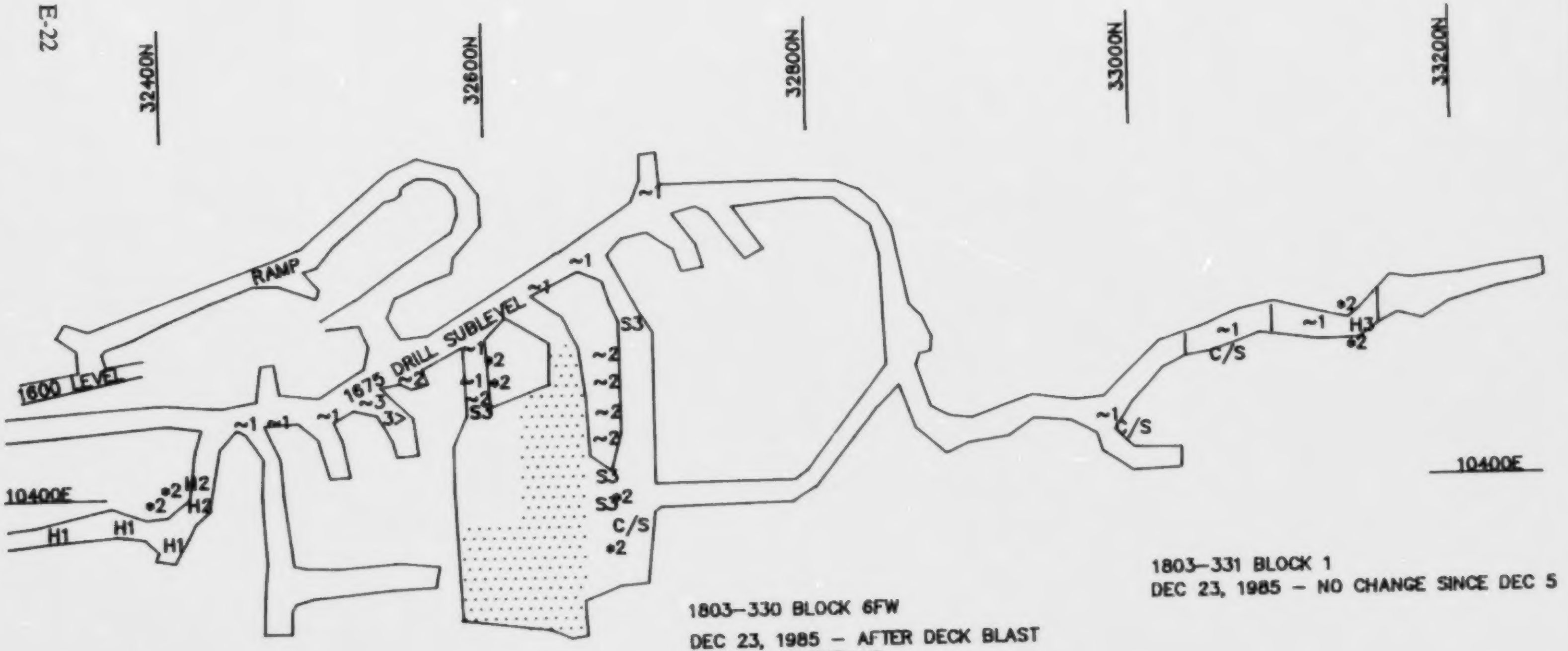
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.21

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW



32400N
32600N
32800N
33000N
33200N
10400E
10400E
1600 LEVEL
RAMP
1675 DRILL SUBLEVEL
~1
~3
3>
~2
•2
S3
C/S
H1
H2
H3

1803–331 BLOCK 1
DEC 23, 1985 – NO CHANGE SINCE DEC 5

1803–330 BLOCK 6FW

DEC 23, 1985 – AFTER DECK BLAST
GROUND CONDITIONS
- BACK CAVED UP AND OVER BLOCK 7
- MOVEMENT ON THE ORE/FW CONTACT TOWARD BLOCK 6 IN BLOCK 5 ACCESS
- PILLAR BETWEEN BLOCK 7 & 8 DETERIORATING

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

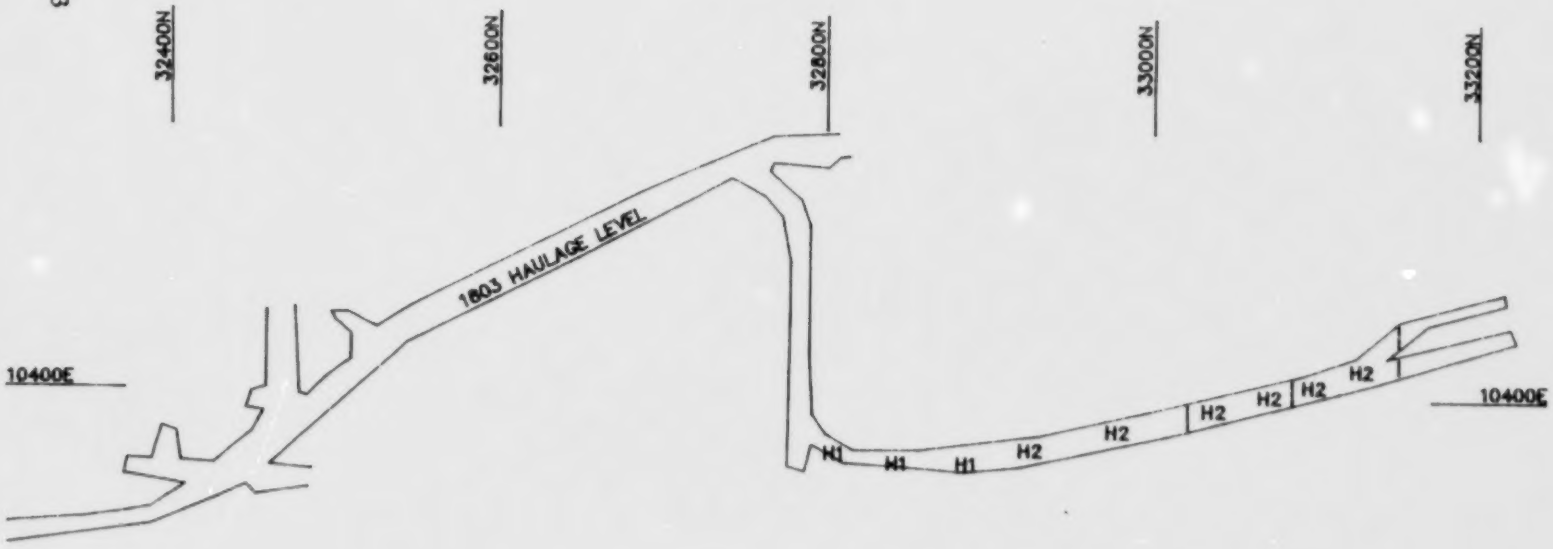
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.22

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H1
H1
H1
H2
H2
H2
H2
H2
H2

1803-331 BLOCK 1
DEC 23, 1985 - NO CHANGE SINCE DEC 5

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

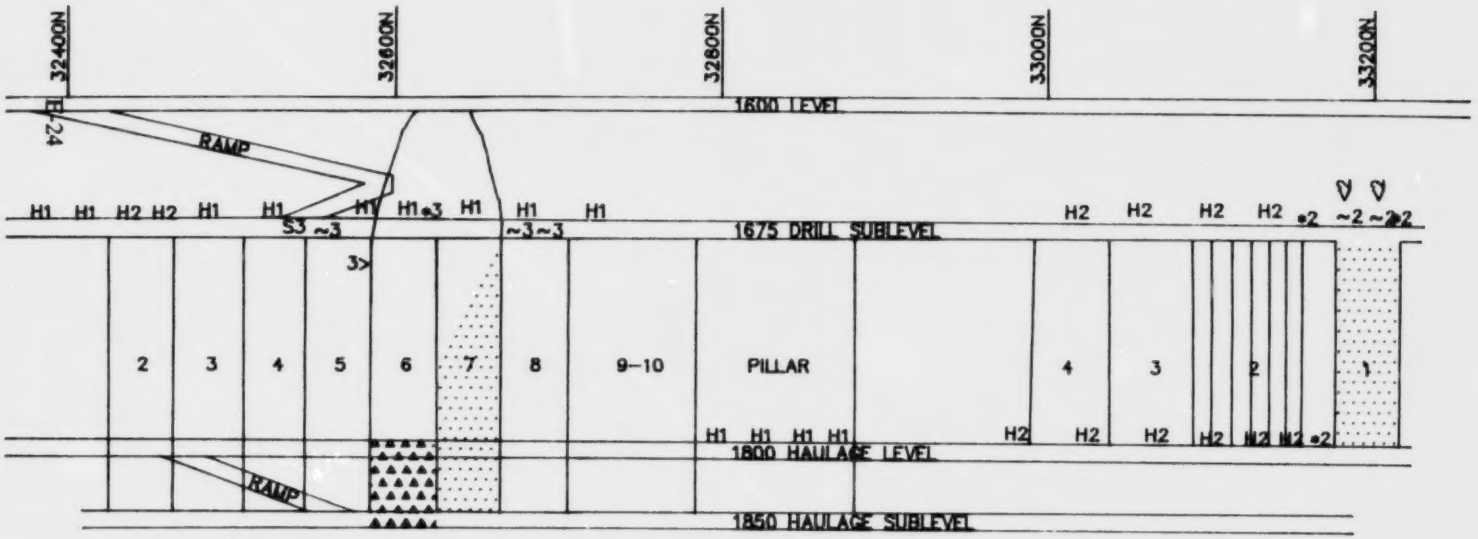
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.23

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
E-24
RAMP
H1 H1 H2 H2 H1 H1 H1 H1•3 H1 H1 H1
S3 ~3
~3~3
3>
H2 H2 H2 H2 •2 ~2 ~2•2
1675 DRILL SUBLEVEL
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H1 H1 H1 H1
H2 H2 H2 H2 H2 H2 •2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 6FW

JAN 21, 1986
GROUND CONDITIONS
- CAVED TO 1600 LEVEL ABOVE BLOCK 6 & 7
- PILLAR BETWEEN BLOCK 7 & 8 HAS SLOUGHED
- SHEAR ON FW CONTACT IN BLOCK 5 ACCESS CONTINUES TO SLIDE DOWN AND INTO BLOCK 6 TOTAL MOVEMENT 1.75 INCHES DOWN AND 2.25 INCHES HORIZONTAL TO BLOCK 6
- DISPLACEMENT GAUGE #2 SHOWS .25 INCH MOVEMENT TO VOID

1803–331 BLOCK 2
FEB 18, 1986
GROUND CONDITIONS
- PROBLEM DRILLING HW HOLES
- HOLES CRUSHING AT 30 & 80FT ELEVATIONS

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

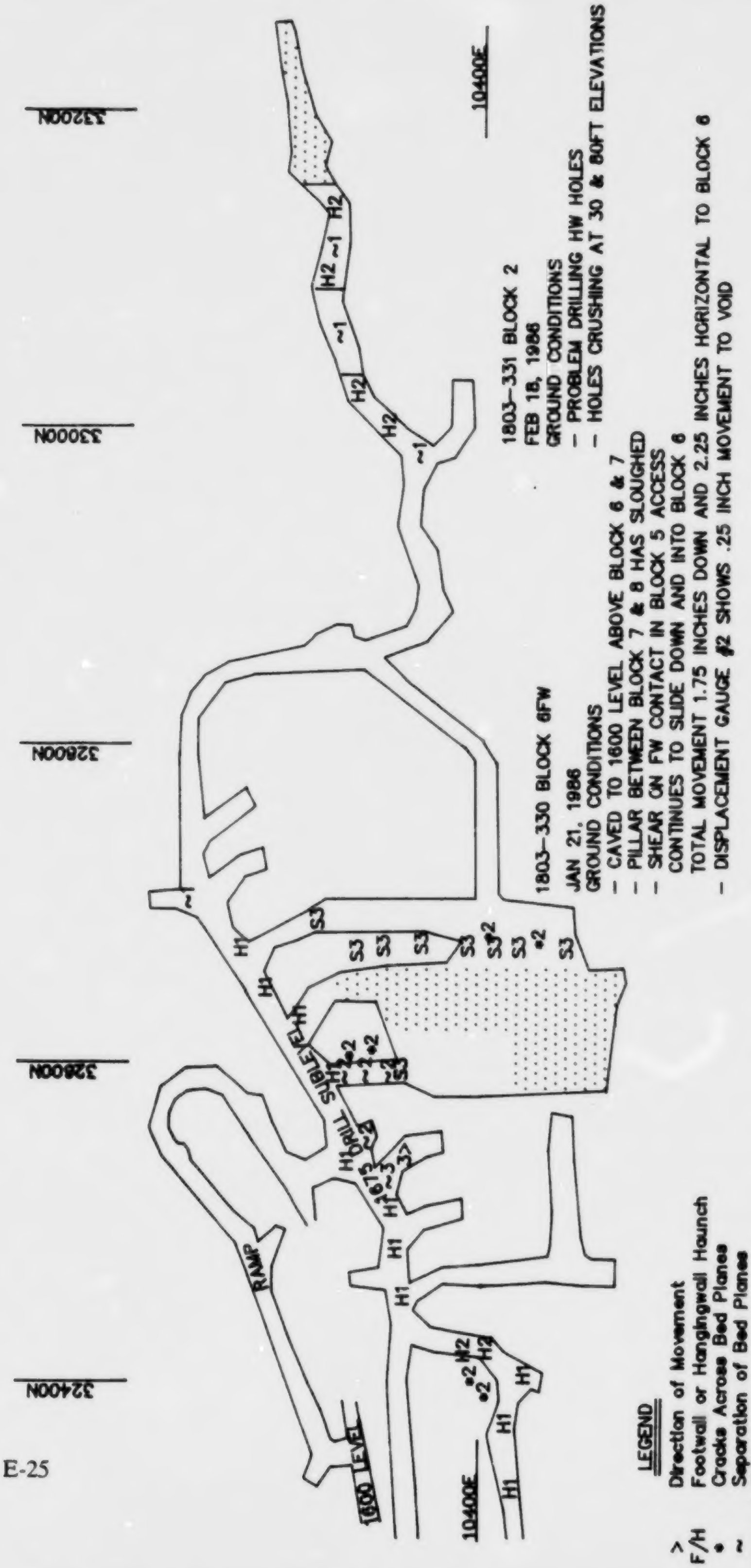
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.24

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


33200N
33000N
32800N
32600N
32400N
10400E
10400E
RAMP
1600 LEVEL
1675 DRILL SUBLEVEL
H1
H2
H2 ~1
~1
~2
•2
S3
3>
~3

1803-331 BLOCK 2
FEB 18, 1986
GROUND CONDITIONS
- PROBLEM DRILLING HW HOLES
- HOLES CRUSHING AT 30 & 80FT ELEVATIONS

1803-330 BLOCK 6FW
JAN 21, 1986
GROUND CONDITIONS
- CAVED TO 1600 LEVEL ABOVE BLOCK 6 & 7
- PILLAR BETWEEN BLOCK 7 & 8 HAS SLOUGHED
- SHEAR ON FW CONTACT IN BLOCK 5 ACCESS
CONTINUES TO SLIDE DOWN AND INTO BLOCK 6
TOTAL MOVEMENT 1.75 INCHES DOWN AND 2.25 INCHES HORIZONTAL TO BLOCK 6
- DISPLACEMENT GAUGE #2 SHOWS .25 INCH MOVEMENT TO VOID

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

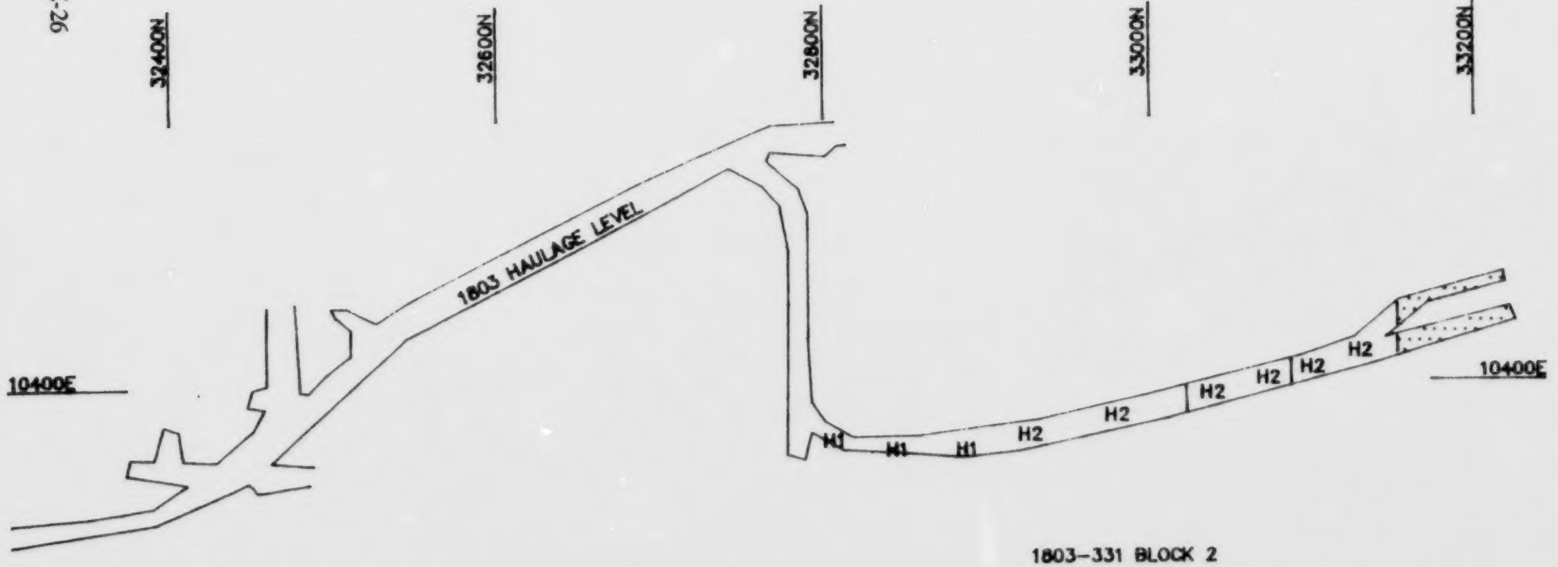
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.25

1800 MAIN HAULAGE
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H1
H1
H1
H2
H2
H2
H2
H2
H2

1803–331 BLOCK 2
FEB 18, 1986
GROUND CONDITIONS
- PROBLEM DRILLING HW HOLES
- HOLES CRUSHING AT 30 & 80FT ELEVATIONS

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

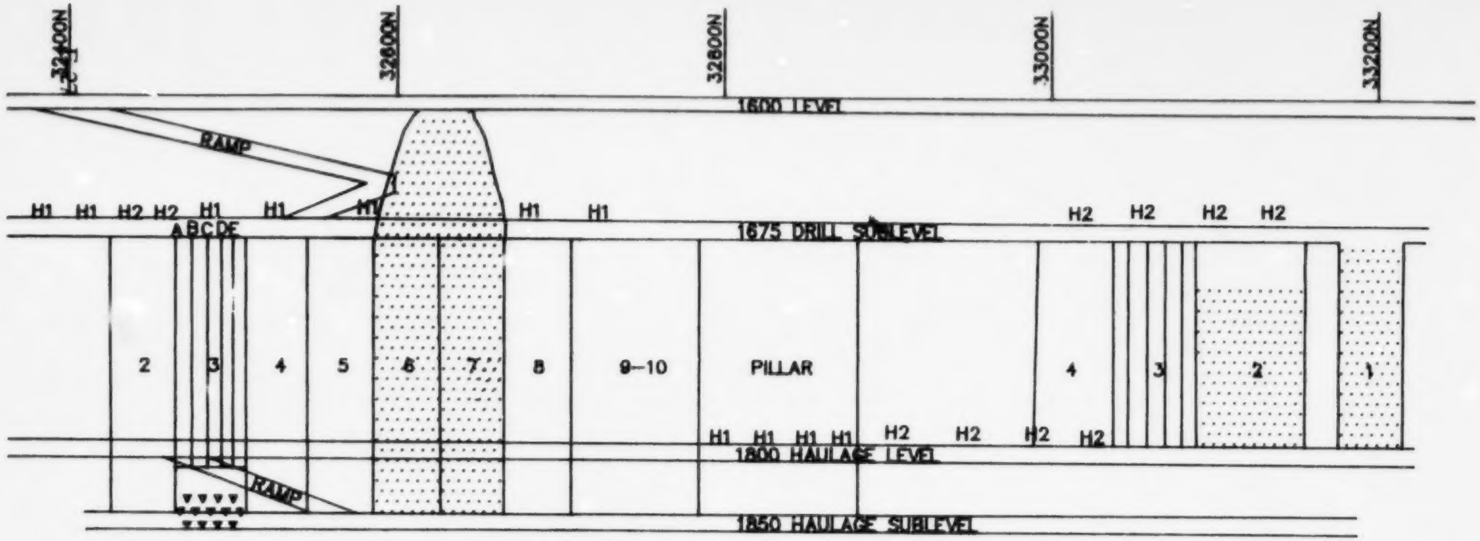
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.26

330 VBM COMPLEX
LONGITUDINAL VIEW


32400N
32600N
32800N
33000N
33200N
1600 LEVEL
RAMP
H1 H1 H2 H2 H1 H1 H1 H1 H1
H2 H2 H2 H2
ABCDE
1675 DRILL SUBLEVEL
2
3
4
5
6
7
8
9–10
PILLAR
4
3
2
1
H1 H1 H1 H1 H2 H2 H2 H2
1800 HAULAGE LEVEL
RAMP
1850 HAULAGE SUBLEVEL

1803–330 BLOCK 3

JUN 23, 1986 – AFTER BLAST 3
GROUND CONDITIONS
– DRILL SUB IN GOOD CONDITION
HOLES
– ROW A & B HOLES COLLAPSED AND HAD TO BE REDRILLED
– ROW C & D HOLES SHOWING SOME STRESS

1803–331 BLOCK 3
JUN 23, 1986
GROUND CONDITIONS
– BACK & WALLS IN GOOD CONDITION STILL
HOLES
– HOLES CLEAN AND SMOOTH (NO APPARTANT STRESS)

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

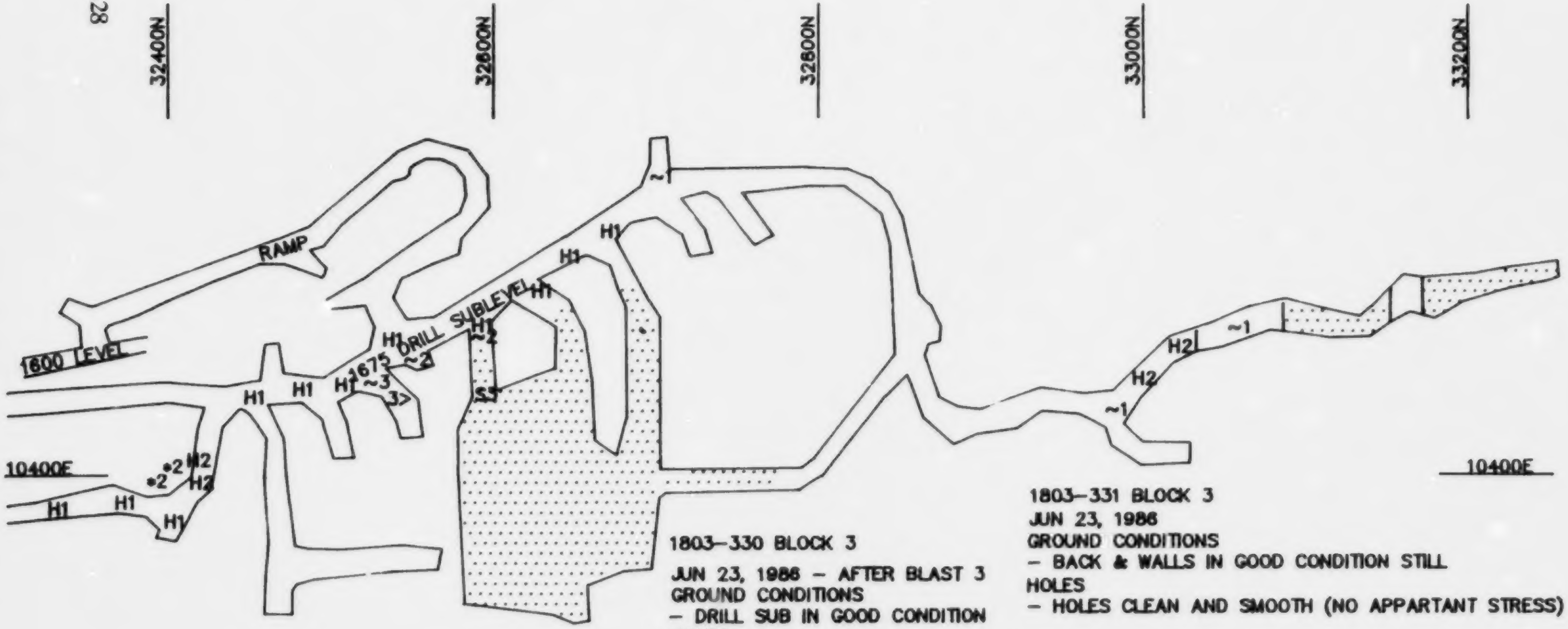
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.27

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1600 LEVEL
RAMP
1675 DRILL SUBLEVEL
H1
H2
~1
~2
~3
3>
•2
S

1803–330 BLOCK 3

JUN 23, 1986 – AFTER BLAST 3
GROUND CONDITIONS
– DRILL SUB IN GOOD CONDITION
HOLES
– ROW A & B HOLES COLLAPSED AND HAD TO BE REDRILLED
– ROW C & D HOLES SHOWING SOME STRESS

1803–331 BLOCK 3
JUN 23, 1986
GROUND CONDITIONS
– BACK & WALLS IN GOOD CONDITION STILL
HOLES
– HOLES CLEAN AND SMOOTH (NO APPARTANT STRESS)

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

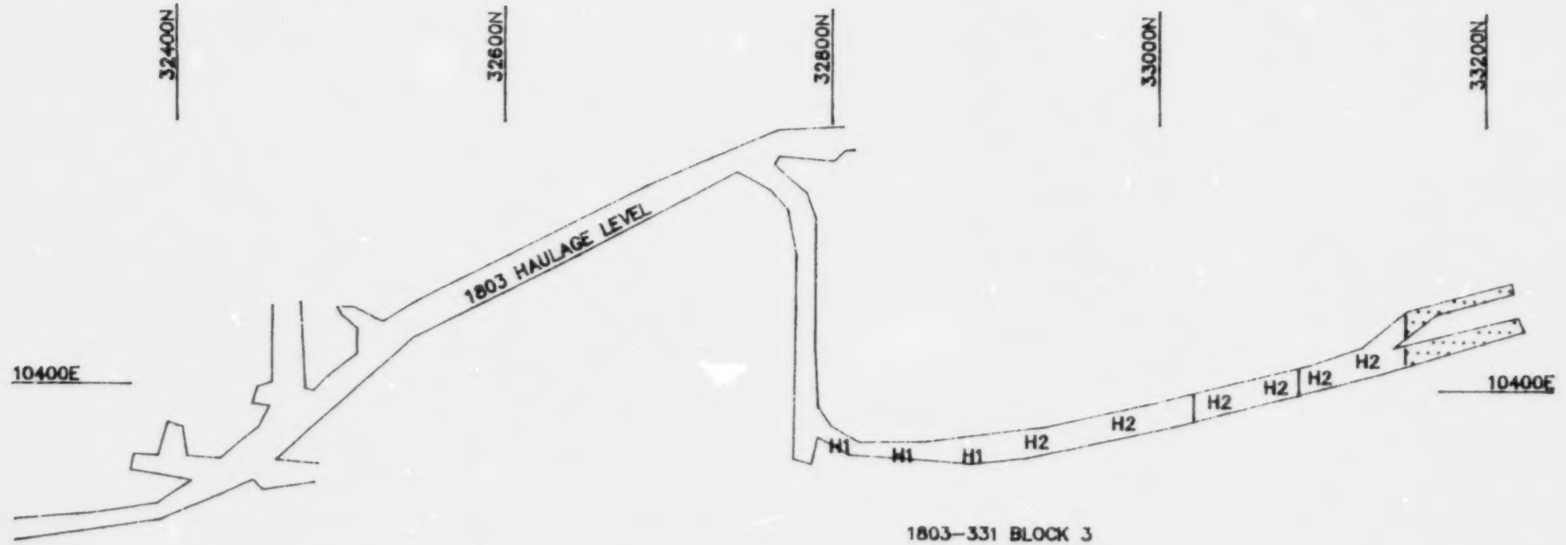
Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

SECTION SKETCHING

FIG. 2E.28

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW


32400N
32600N
32800N
33000N
33200N
10400E
10400E
1803 HAULAGE LEVEL
H1
H1
H1
H2
H2
H2
H2
H2
H2

1803–331 BLOCK 3
JUN 23, 1986
GROUND CONDITIONS
– BACK & WALLS IN GOOD CONDITION STILL
HOLES
– HOLES CLEAN AND SMOOTH (NO APPARTANT STRESS)

LEGEND

>	Direction of Movement
F/H	Footwall or Hangingwall Haunch
•	Cracks Across Bed Planes
~	Separation of Bed Planes
S or /	Shears
C/S	Clean and Smooth
+	Oval Shape

Severity of Conditions

1	Mild or Just Noticeable
2	Moderate
3	Severe

APPENDIX F

CASE HISTORY - FIELD INSTRUMENTATION

F1	CASE HISTORY - FIELD INSTRUMENTATION DATA
F2 TO F50	FIGURES 2F.1 TO 2F.49

APPENDIX F - CASE HISTORY - FIELD INSTRUMENTATION

The majority of the instrumentation is around the 330 stope and this stoping area still has some time to completion and therefore the analysis of the data is preliminary.

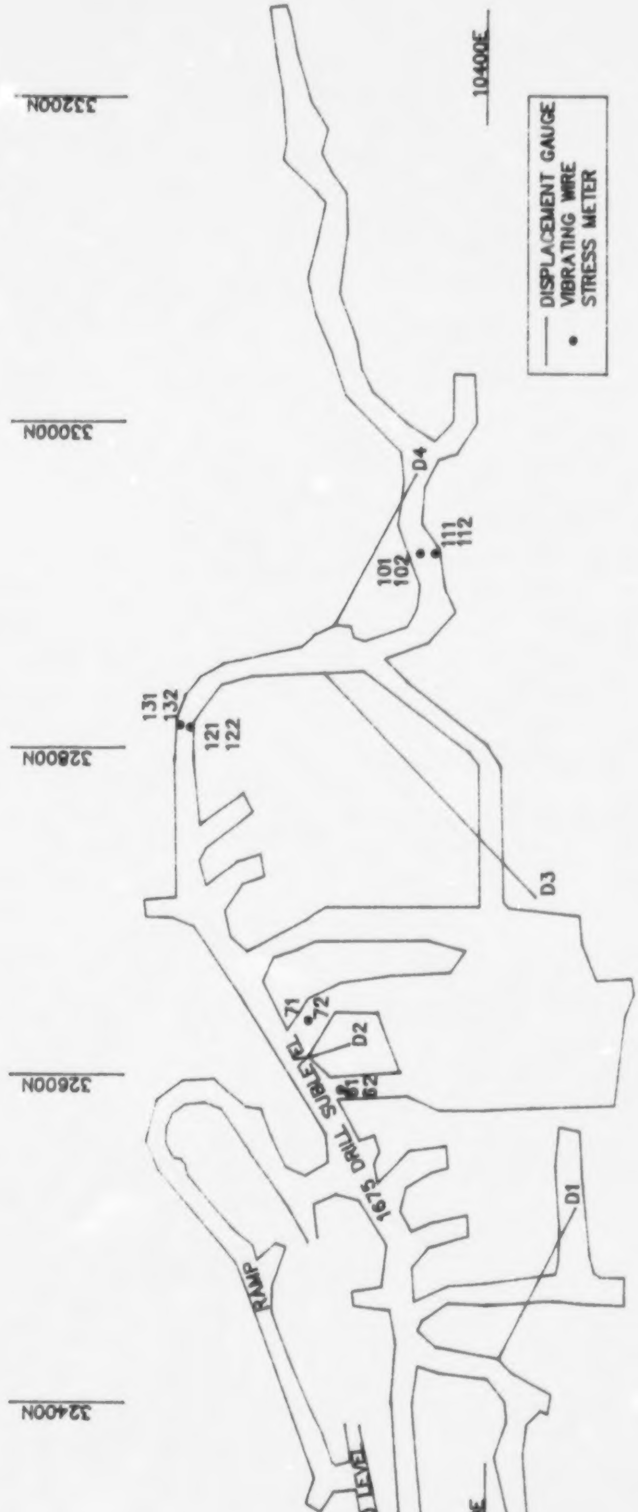
The rest of the instrumentation is installed to compare the closure between hanging wall and footwall with the increase in stresses within the backfill and it is much too early for any significant change. The position of the instruments are shown in figures F1 to F3. The data for the stressmeters and extensometers are presented in figures F4 to F49.

Certain behaviourial patterns are indicated:

- Stressmeters
    - very little stress increase has been recorded by the meters and nearly all the changes have been negative.
    - negative changes are an indication of relaxation and all the older meters showed a huge relaxation during extraction of the hanging wall No. 6 Block. This implies that the ore squeezed into the opening everywhere, more or less at the same time, and to distances of over 50 meters on strike on both sides of the stope. It is possible that the elliptical shape allowed such a large transfer but one would have expected a fairly significant energy release.
    - A second sudden stress release was recorded by meters on the 1800 level and when block 3 was extracted.
    - One would expect significant stress increases on at least some of the meters if such high stress releases actually occur.
    - The N111 and N112 are halfway between the stoping blocks and should be recording fairly significant stress increases but are actually showing large and continuous decreases. An explanation could be that creep is occurring around the installation wedge due to the softness of the ore.
- Extensometers
    - The records are extremely variable and at this stage the only conclusion of significance is that the longest wires are recording the relaxation into the open stope.
- Closure Pins and Earth Pressure Cells
    - Closure and stress increase is being recorded but there is less than 4 meters of fill over the earth pressure cells andit is much too early to draw conclusions.

FIELD INSTRUMENTATION

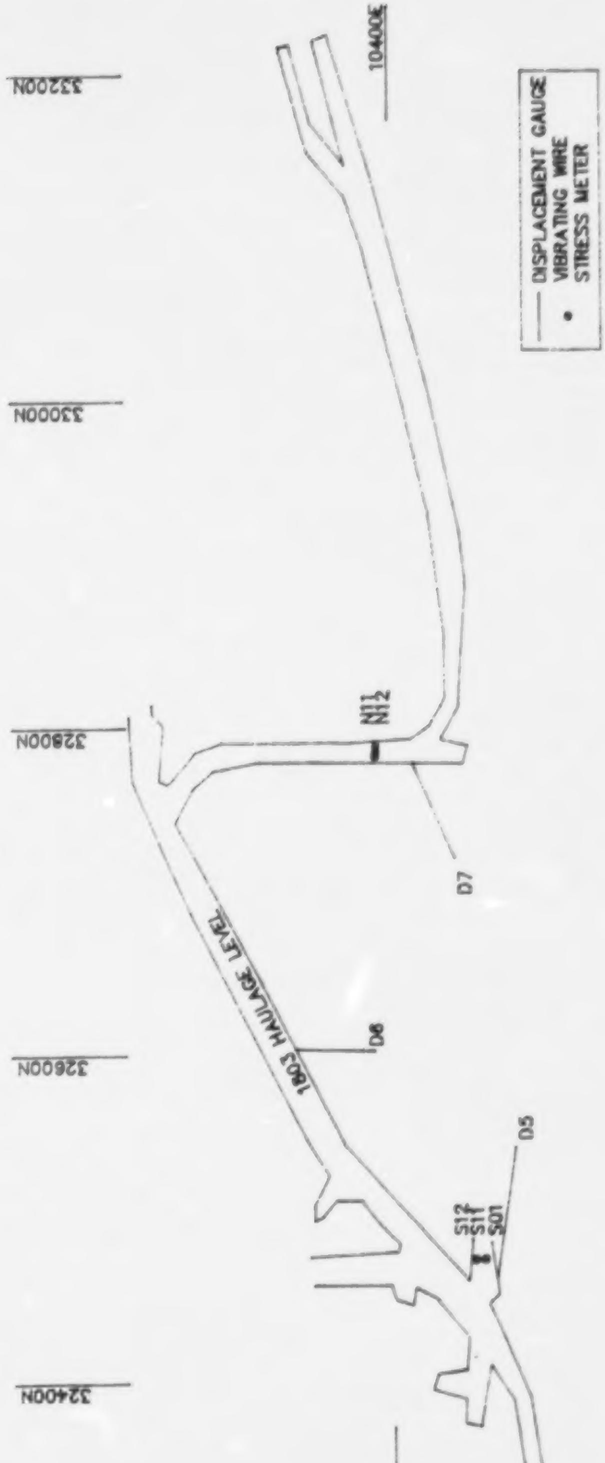
FIG. 2F.1


33200N
33000N
32800N
32600N
32400N
10400E
10400E
— DISPLACEMENT GAUGE
• VIBRATING WIRE STRESS METER
D4
101
102
111
112
131
132
121
122
D3
71
72
D2
61
62
1675 DRILL SUBLEVEL
D1
RAMP
1800 LEVEL

1675 DRILL SUBLEVEL
330 VBM COMPLEX
PLAN VIEW

FIELD INSTRUMENTATION

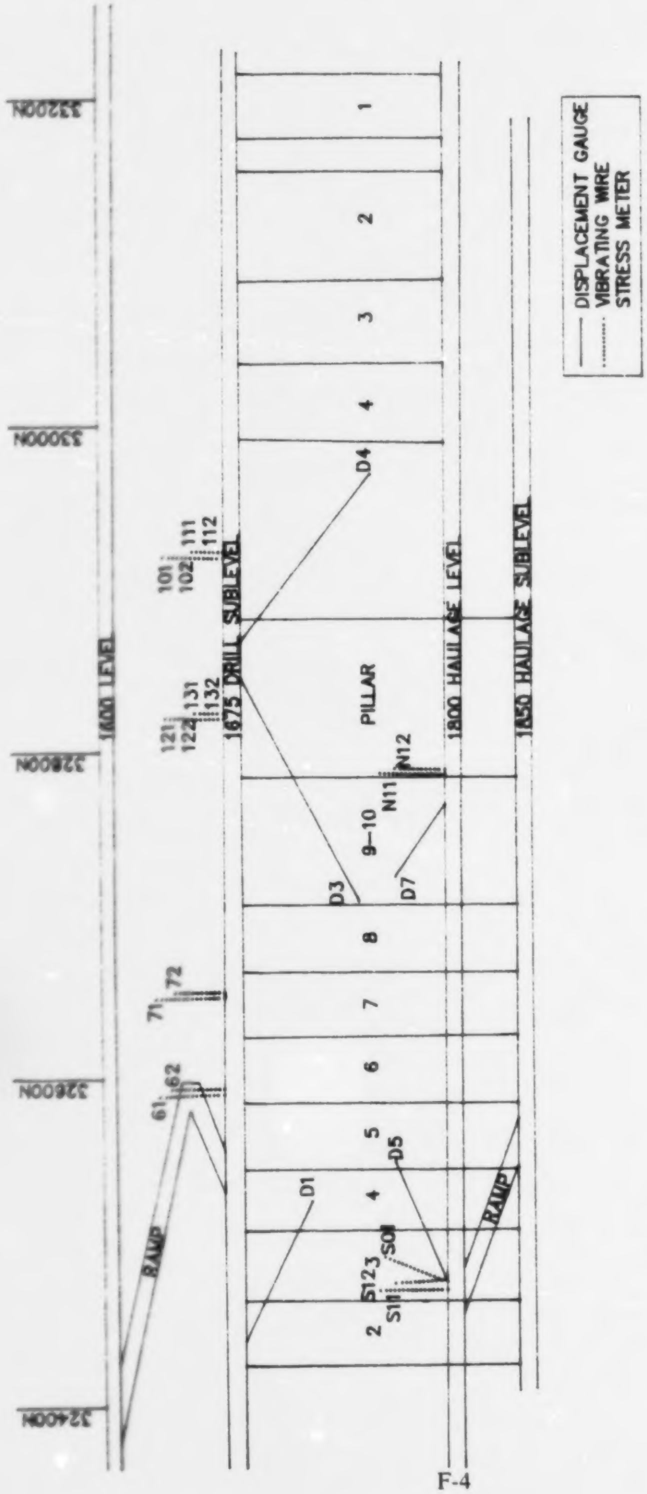
FIG. 2F.2


33200N
33000N
32800N
32600N
32400N
10400E
10400E
DISPLACEMENT GAUGE
VIBRATING WIRE
STRESS METER
N11
N12
D7
1803 HAULAGE LEVEL
D6
D5
S12
S11
S01

1800 HAULAGE LEVEL
330 VBM COMPLEX
PLAN VIEW

FIELD INSTRUMENTATION

FIG. 2F.3


33200N
33000N
32800N
32600N
32400N
1600 LEVEL
1675 DRILL SUBLEVEL
1800 HAULAGE LEVEL
1850 HAULAGE SUBLEVEL
RAMP
RAMP
PILLAR
1
2
3
4
9–10
8
7
6
5
4
2
D1
D3
D4
D5
D7
N11
N12
S11
S123
S01
61
62
71
72
101
102
111
112
121
122
131
132
DISPLACEMENT GAUGE
VIBRATING WIRE
STRESS METER

330 VBM COMPLEX
LONGITUDINAL VIEW

FIG. 2F.4

EXTENSEOMETER MONITORING RECORD

LEVEL---- 1675 INSTAL-- NOV.13/85
STOPE---- 330
HOLE NO.- 1
NO.GAUGES 3

		ANCHOR SET 15'				ANCHOR SET 65'				ANCHOR SET 108.5'				
DATE	CO-AXIAL READ	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	
DEC.5/85	108.5	16'3"	1.872	0.000	0.000	16'1.5"	1.010	0.000	0.000	15'9"	1.599	0.000	0.000	0
DEC.10/85			1.866	-0.006	-0.006		0.943	-0.067	-0.067		1.561	-0.038	-0.038	5
DEC.18/85			1.812	-0.054	-0.060		0.921	-0.022	-0.089		1.521	-0.040	-0.078	13
DEC.23/85			1.865	0.053	-0.007		0.920	-0.001	-0.090		1.567	0.046	-0.032	18
JAN.02/86			1.805	-0.060	-0.067		0.920	0.000	-0.090		1.508	-0.059	-0.091	28
JAN.21/86			1.766	-0.039	-0.106		0.896	-0.024	-0.114		1.470	-0.038	-0.129	47
JAN.30/86			1.743	-0.023	-0.129		0.864	-0.032	-0.146		1.460	-0.010	-0.139	56
FEB.06/86			1.750	0.007	-0.122		0.900	0.036	-0.110		1.505	0.045	-0.094	63
FEB.11/86			1.740	-0.010	-0.132		0.800	-0.100	-0.210		1.462	-0.043	-0.137	68
FEB.11/86		16'6"	0.727	0.000	0.000	16'3"	1.350	0.000	-0.210	15'10.5"	1.841	0.000	-0.137	68
FEB.18/86			0.726	-0.001	-0.001		1.400	0.050	-0.160		1.900	0.059	-0.078	75
MAR.03/86			0.710	-0.016	-0.017		1.435	0.035	-0.125		1.944	0.044	-0.034	88
MAR.10/86			0.710	0.000	-0.017		1.420	-0.015	-0.140		1.945	0.001	-0.033	95
MAR.21/86			0.710	0.000	-0.017		1.422	0.002	-0.138		1.920	-0.025	-0.058	106
APR.08/86		14'4.5"	0.880	0.000	-0.017	14'1.5"	1.520	0.000	-0.138	13'10.5"	0.670	0.000	-0.058	124
APR.15/86			0.885	0.005	-0.012		1.555	0.035	-0.103		0.590	-0.080	-0.138	131
MAY.05/86			0.890	0.005	-0.007		1.592	0.037	-0.066		0.665	0.075	-0.063	151
MAY.20/86			0.865	-0.025	-0.032		1.568	-0.024	-0.090		0.638	-0.027	-0.090	166
JUN.05/86			0.990	0.015	-0.017		1.592	0.024	-0.066		0.684	0.046	-0.044	181
JUN.23/86			0.851	-0.029	-0.046		1.562	-0.030	-0.096		0.635	-0.049	-0.093	199
SEP.15/86			0.890	0.039	-0.007		1.774	0.212	0.116		0.940	0.305	0.212	283
OCT.14/86			0.795	-0.095	-0.102		1.797	0.023	0.139		0.764	-0.176	0.036	312
LOOSE CONDITIONS				-0.795	-0.897			-1.797	-1.658			-0.764	-0.728	

1675 LEVEL, 330 STOPE HOLE #1

EXTENSEOMETER MONITORING

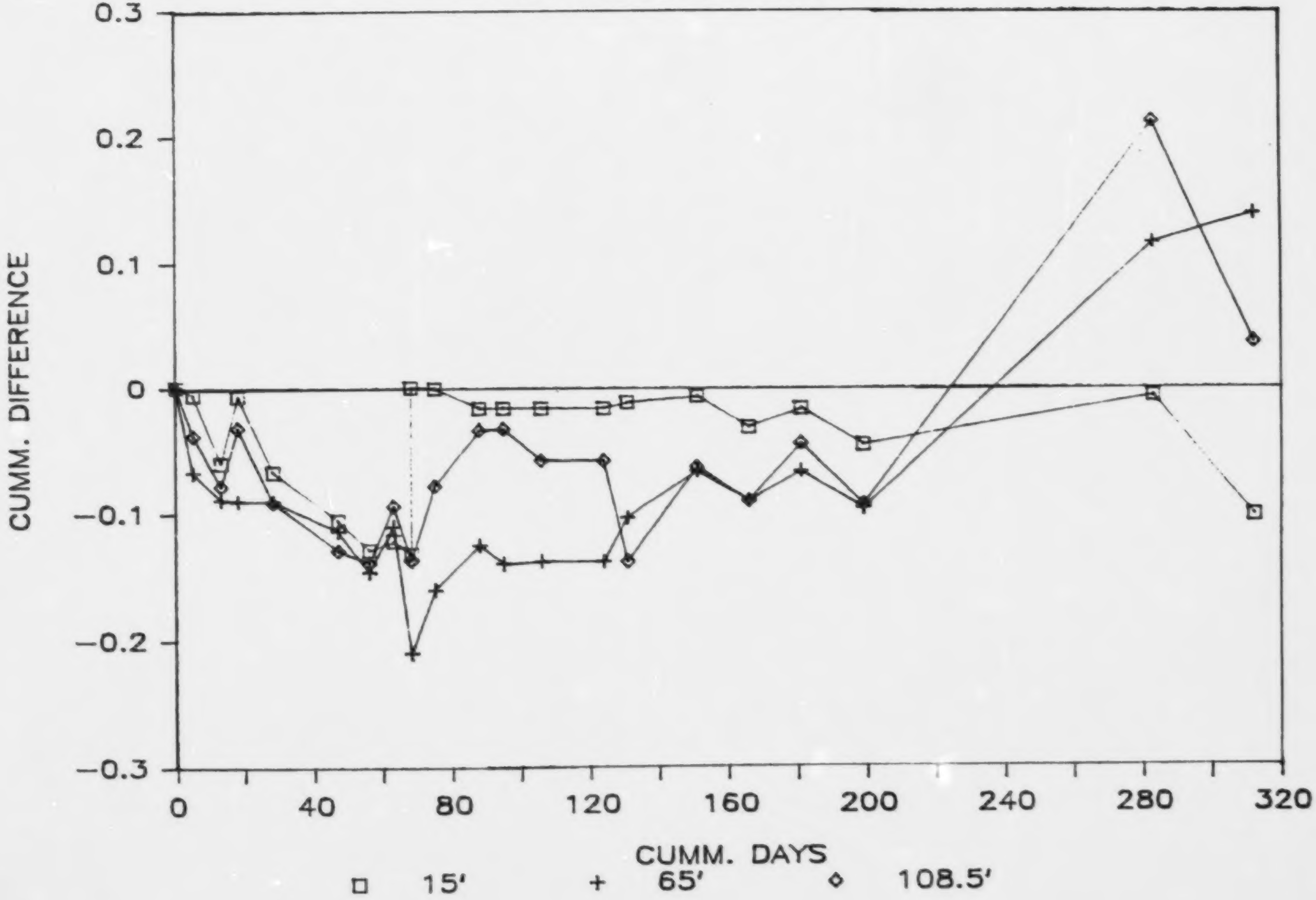


FIG. 2F.5

FIG. 2F.6

ESTENSEOMETER MONITORING RECORD

LEVEL---- 1675 INSTAL-NOV.13/85
STOPE---- 330
HOLE NO.- 2
NO.GAUGES 2

		ANCHOR SET 15'				ANCHOR SET 31				
DATE	CO-AXIAL READ	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	
NOV.13/85	31	11'9"	1.120	0.000	0.000	11'6"	0.712	0.000	0.000	0
DEC.5/85			1.021	-0.099	-0.099		0.718	0.006	0.006	17
DEC.10/85			0.999	-0.022	-0.121		0.640	-0.078	-0.072	22
DEC.18/85			1.021	0.022	-0.099		0.735	0.095	0.023	30
DEC.23/85			1.068	0.047	-0.052		0.860	0.125	0.148	35
JAN.02/86			1.120	0.052	0.000		0.869	0.009	0.157	45
JAN.21/86			1.109	-0.011	-0.011		0.892	0.023	0.180	64
JAN.30/86			1.010	-0.099	-0.110		0.893	0.001	0.181	73
FEB.06/86			1.119	0.109	-0.001		0.960	0.067	0.248	80
FEB.11/86			1.110	-0.009	-0.010		0.877	-0.083	0.165	85
FEB.11/86		12'0"	0.595	0.000	-0.010	11.7.5"	0.840	0.000	0.165	85
FEB.18/86			0.614	0.019	0.009		0.873	0.033	0.198	92
MAR.03/86			0.621	0.007	0.016		0.914	0.041	0.239	105
MAR.10/86			0.622	0.001	0.017		0.914	0.000	0.239	112
MAR.21/86			0.622	0.000	0.017		0.941	0.027	0.266	123
APR.08/86			0.630	0.008	0.025		0.930	-0.011	0.255	141
APR.15/86			0.638	0.008	0.033		0.940	0.010	0.265	148
MAY.05/86			0.647	0.009	0.042		0.962	0.022	0.287	168
MAY.20/86			0.711	0.064	0.106		1.008	0.046	0.333	183
JUN.05/86			0.710	-0.001	0.105		0.990	-0.018	0.315	198
JUN.23/86			0.709	-0.001	0.104		0.972	-0.018	0.297	216
SEP.15/86			0.720	0.011	0.115		1.008	0.036	0.333	300
OCT.14/86			0.720	0.000	0.115		1.008	0.000	0.333	329
OCT.29/86			0.709	-0.011	0.104		0.972	-0.036	0.297	354
NOV.12/86			0.722	0.013	0.117		1.003	0.031	0.328	370
DEC.19/86			0.735	0.013	0.130		0.990	-0.013	0.315	407
JAN.27/87			0.745	0.010	0.140		1.032	0.042	0.357	446
MAR.04/87		LOOSE		-0.745	-0.605		1.030	-0.002	0.355	482

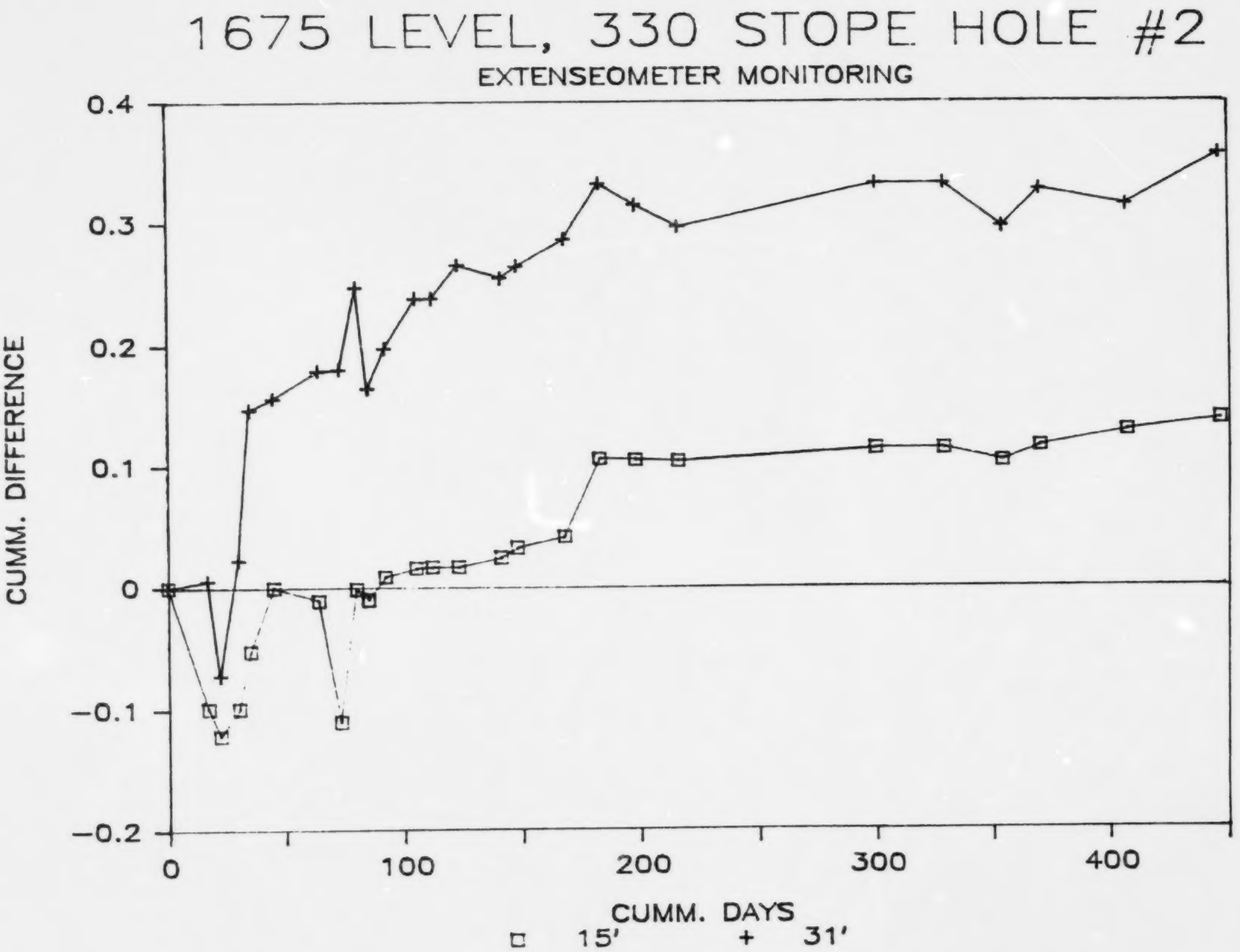

1675 LEVEL, 330 STOPE HOLE #2
EXTENSEOMETER MONITORING
CUMM. DIFFERENCE
0.4
0.3
0.2
0.1
0
−0.1
−0.2
0
100
200
300
400
CUMM. DAYS
□ 15'
+ 31'

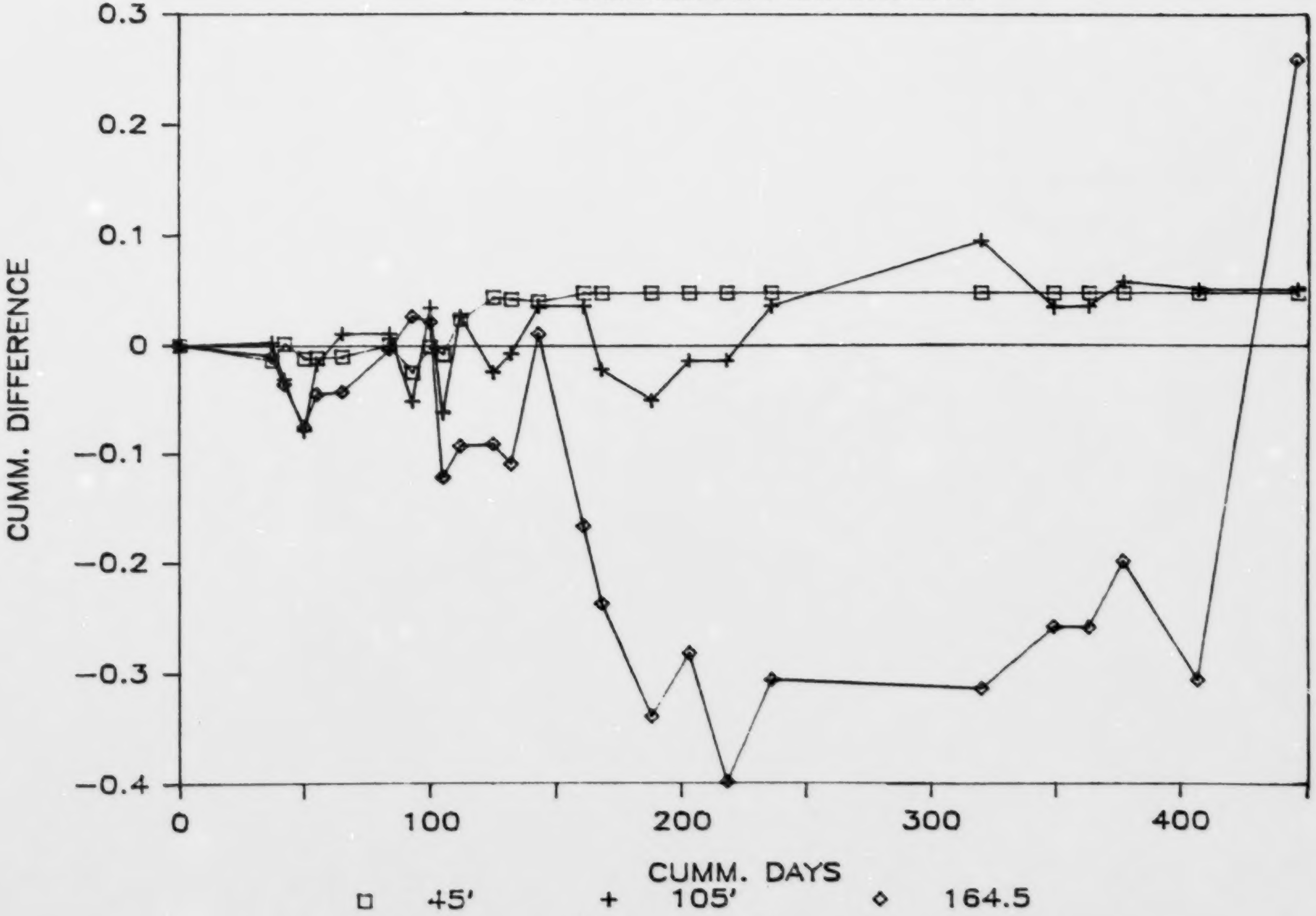
FIG. 2F.7

FIG. 2F.8

```
EXTENSEOMETER MONITORING RECORD

LEVEL----    1675  INSTAL--OCT.29/85
STOPE----     330
HOLE NO.-       3
NO.GAUGES       3

                  : ANCHOR   SET      45         : ANCHOR   SET     105        :ANCHOR  SET    164.5          :
------------------:------------------------------:-----------------------------:-----------------------------:
 DATE    CO-AXIAL : TAPE    DIAL   DIFF    CUMM  : TAPE    DIAL   DIFF   CUMM  : TAPE  DIAL   DIFF    CUMM   :  CUMM
            READ  : READ.   READ           DIFF. : READ.   READ          DIFF. : READ. READ           DIFF.  :  DAYS
------------------:------------------------------:-----------------------------:-----------------------------:---------
OCT.29/85   164.5 :13'10.5" 1.123  0.000   0.000 :13'4.5"  0.817  0.000  0.000 : 12'9" 1.578   0.000  0.000 :      0
DEC.5/85          :         1.109 -0.014  -0.014 :         0.820  0.003  0.003 :       1.568  -0.010 -0.010 :     37
DEC.10/85         :         1.125  0.016   0.002 :         0.786 -0.034 -0.031 :       1.542  -0.026 -0.036 :     42
DEC.18/85         :         1.111 -0.014  -0.012 :         0.738 -0.048 -0.079 :       1.503  -0.039 -0.075 :     50
DEC.23/85         :         1.112  0.001  -0.011 :         0.800  0.062 -0.017 :       1.533   0.030 -0.045 :     55
JAN.02/86         :         1.113  0.001  -0.010 :         0.828  0.028  0.011 :       1.535   0.002 -0.043 :     65
JAN.21/86         :         1.124  0.011   0.001 :         0.828  0.000  0.011 :       1.575   0.040 -0.003 :     84
JAN.30/86         :         1.098 -0.026  -0.025 :         0.765 -0.063 -0.052 :       1.605   0.030  0.027 :     93
FEB.06/86         :         1.122  0.024  -0.001 :         0.852  0.087  0.035 :       1.600  -0.005  0.022 :    100
FEB.11/86         :         1.115 -0.007  -0.008 :         0.755 -0.097 -0.062 :       1.457  -0.143 -0.121 :    105
FEB.11/86         : 15'9"   1.752  0.000  -0.008 :15'4.5"  1.435  0.000 -0.062 : 14'9" 1.010   0.000 -0.121 :    105
FEB.18/86         :         1.784  0.032   0.024 :         1.524  0.089  0.027 :       1.038   0.028 -0.093 :    112
MAR.03/86         :         1.804  0.020   0.044 :         1.472 -0.052 -0.025 :       1.040   0.002 -0.091 :    125
MAR.10/86         :         1.802 -0.002   0.042 :         1.490  0.018 -0.007 :       1.022  -0.018 -0.109 :    132
MAR.21/86         :         1.800 -0.002   0.040 :         1.533  0.043  0.036 :       1.142   0.120  0.011 :    143
APR.08/86         :NO MORE        -1.800   0.048 :         1.533  0.000  0.036 :       0.965  -0.177 -0.166 :    161
APR.15/86         :NO MORE         0.000   0.048 :         1.475 -0.058 -0.022 :       0.895  -0.070 -0.236 :    168
MAY.05/86         :NO MORE         0.000   0.048 :         1.446 -0.029 -0.051 :       0.793  -0.102 -0.338 :    188
MAY.20/86         :NO MORE         0.000   0.048 :         1.483  0.037 -0.014 :       0.850   0.057 -0.281 :    203
JUN.05/86         :NO MORE         0.000   0.048 :         1.483  0.000 -0.014 :       0.733  -0.117 -0.398 :    218
JUN.23/86         :NO MORE         0.000   0.048 :         1.533  0.050  0.036 :       0.826   0.093 -0.305 :    236
SEP,15/86         :NO MORE         0.000   0.048 :         1.592  0.059  0.095 :       0.817  -0.009 -0.314 :    320
OCT.14/86         :                0.000   0.048 :         1.532 -0.060  0.035 :       0.873   0.056 -0.258 :    349
OCT.29/86         :                0.000   0.048 :         1.533  0.001  0.036 :       0.872  -0.001 -0.259 :    363
NOV.12/86         :                0.000   0.048 :         1.555  0.022  0.058 :       0.932   0.060 -0.199 :    377
DEC.19/86         :                0.000   0.048 :         1.548 -0.007  0.051 :       0.825  -0.107 -0.306 :    407
JAN.27/87         :                0.000   0.048 : 15'6"   0.406  0.000  0.051 :       1.390   0.565  0.259 :    446
MAR.04/87         :                0.000   0.048 :         0.500  0.094  0.145 :       1.630   0.240  0.499 :    482
```



1675 LEVEL, 330 STOPE HOLE #3

EXTENSEOMETER MONITORING

FIG. 2F.9

FIG. 2F.10

EXTENSEOMETER MONITORING RECORD

LEVEL---- 1675 INSTAL--OCT.30/85
STOPE---- 330
HOLE NO.- 4
NO.GAUGES 3

		ANCHOR SET 50				ANCHOR SET 90				ANCHOR SET 134				
DATE	CO-AXIAL READ	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAFE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	
OCT.30/85	134	6'4.5"	1.605	0.000	0.000	6'3"	0.647	0.000	0.000	5'10.5	1.363	0.000	0.000	0
DEC.5/85			1.607	0.002	0.002		0.692	0.045	0.045		1.346	-0.017	-0.017	36
DEC.10/85			1.582	-0.025	-0.023		0.645	-0.047	-0.002		1.373	0.027	0.010	41
DEC.18/85			1.578	-0.004	-0.027		0.711	0.066	0.064		1.375	0.002	0.012	49
DEC.23/85			1.580	0.002	-0.025		0.700	-0.011	0.053		1.390	0.015	0.027	54
JAN.02/86			1.590	0.010	-0.015		0.650	-0.050	0.003		1.418	0.028	0.055	64
JAN.30/86		8'4.5"	0.943	0.000	-0.015	8'1.5"	1.508	0.000	0.003	7'10.5"	0.523	0.000	0.055	92
FEB.06/86			0.929	-0.014	-0.029		1.520	0.012	0.015		0.638	0.115	0.170	99
FEB.11/86			0.900	-0.029	-0.058		1.485	-0.035	-0.020		0.632	-0.006	0.164	104
FEB.11/86		8'6"	1.235	0.000	-0.058	8'4.5"	0.665	0.000	-0.020	8'0"	0.925	0.000	0.164	104
FEB.18/86			1.215	-0.020	-0.078		0.684	0.019	-0.001		0.956	0.031	0.195	111
MAR.03/86			1.235	0.020	-0.058		0.695	0.011	0.010		1.020	0.064	0.259	124
MAR.10/86			1.235	0.000	-0.058		0.695	0.000	0.010		1.000	-0.020	0.239	131
MAR.21/86			1.270	0.035	-0.023		0.685	-0.010	.000		1.028	0.028	0.267	142
APR.08/86			1.270	0.000	-0.023		0.685	0.000	.000		1.030	0.002	0.269	160
APR.15/86			1.254	-0.016	-0.039		0.695	0.010	0.010		0.995	-0.035	0.234	167
MAY.05/86			1.255	0.001	-0.038		0.695	0.000	0.010		1.000	0.005	0.239	187
MAY.20/86			1.255	0.000	-0.038		0.718	0.023	0.033		1.030	0.030	0.269	202
JUN.05/86			1.232	-0.023	-0.061		0.650	-0.068	-0.035		0.952	-0.078	0.191	217
JUN.23/86			1.232	0.000	-0.061		0.650	0.000	-0.035		1.010	0.058	0.249	235
SEP.15/86			1.072	-0.160	-0.221		0.351	-0.299	-0.334		1.010	0.000	0.249	319
NOV.12/86		NO MORE		-1.072	-1.293	NO MORE		-0.351	-0.685		0.989	-0.021	0.228	377
DEC.19/86				0.000	-1.293			0.000	-0.685		1.105	0.116	0.344	414
JAN.27/87	NO READIN	S		0.000	-1.293			0.000	-0.685			-1.105	-0.761	
	COMFRESSO	IN THE WAY'		0.000	-1.293			0.000	-0.685			0.000	-0.761	453

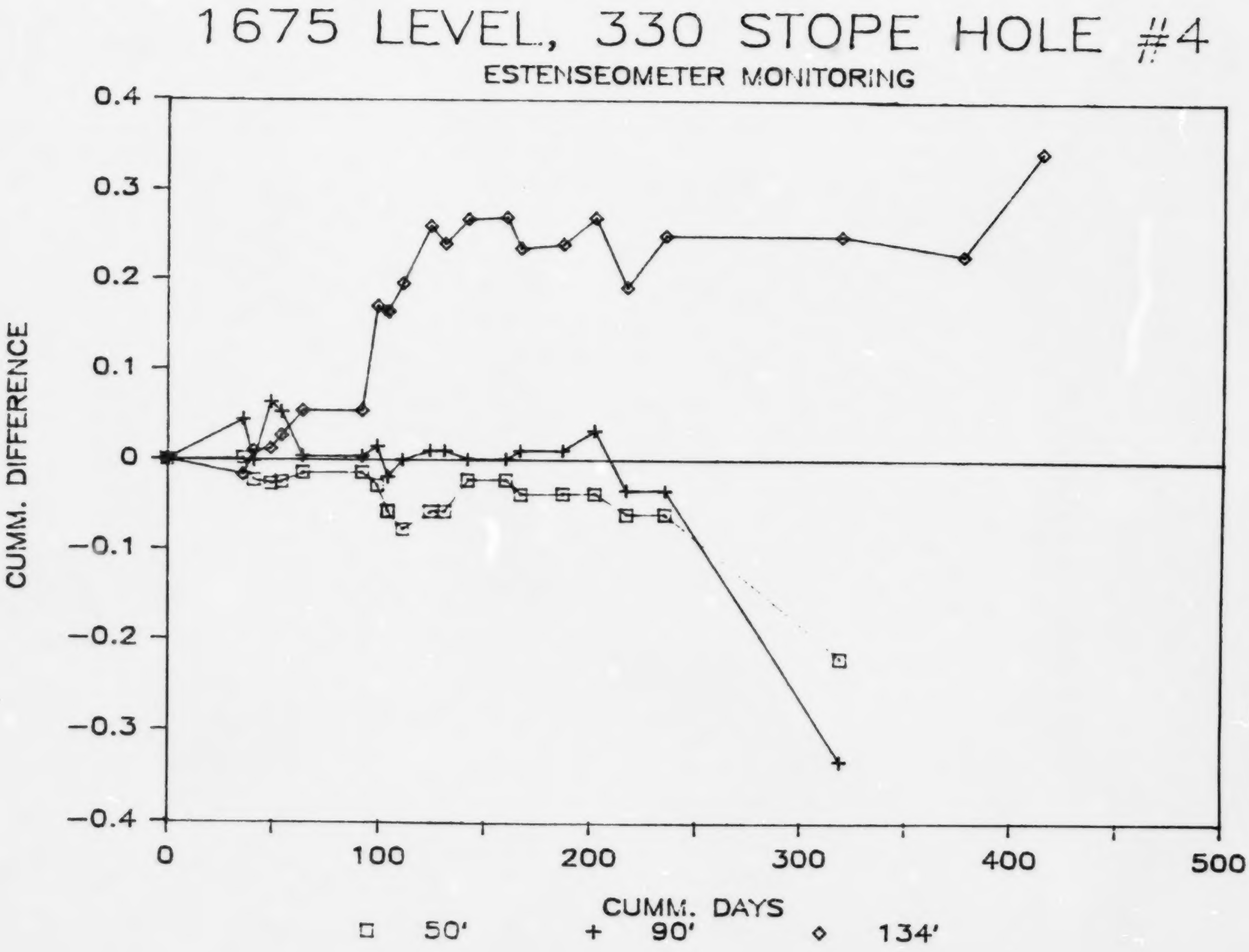
1675 LEVEL, 330 STOPE HOLE #4
ESTENSEOMETER MONITORING
CUMM. DIFFERENCE
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
0
100
200
300
400
500
CUMM. DAYS
□ 50'
+ 90'
◇ 134'

FIG. 2F.11

FIG. 2F.12

```
        ESTENSEOMETER MONITORING RECORD

LEVEL----     1803  INSTAL-NOV.25./85
STOPE----      330
HOLE NO.-        5
NO.GAUGES        2

                  :ANCHOR   SET    42.5          : ANCHOR   SET      35          :
------------------:------------------------------:------------------------------:
  DATE   CO-AXIAL : TAPE    DIAL   DIFF     CUMM  :  TAPE    DIAL   DIFF    CUMM  :
             READ : READ.   READ            DIFF. : READ.    READ           DIFF. :
------------------:------------------------------:------------------------------:
DEC.5/85       85 :14'10.5 0.727  0.000    0.000 : 14'6"    0.332  0.000  0.000 :      0
DEC.10/85         :        0.690 -0.037   -0.037 :          0.276 -0.056 -0.056 :      5
DEC.18/85         :        0.679 -0.011   -0.048 :          0.295  0.019 -0.037 :     13
DEC.23/85         :        0.678 -0.001   -0.049 :          0.352  0.057  0.020 :     18
JAN.02/86         :        0.750  0.072    0.023 :          0.451  0.099  0.119 :     28
JAN.21/86         :        0.793  0.043    0.066 :          0.522  0.071  0.190 :     47
JAN.30/86         :        0.718 -0.075   -0.009 :          0.516 -0.006  0.184 :     56
FEB.05/86         :        0.686 -0.032   -0.041 :          0.538  0.022  0.206 :     63
FEB.11/86         :        0.700  0.014   -0.027 :          0.500 -0.038  0.168 :     68
FEB.11/86         :15'10.5 1.023  0.000   -0.027 :15'1.5"   0.940  0.000  0.168 :     68
FEB.18/86         :        1.024  0.001   -0.026 :          0.950  0.010  0.178 :     75
MAR.03/86         :        1.034  0.010   -0.016 :          0.988  0.038  0.216 :     88
MAR.10/86         :        1.036  0.002   -0.014 :          1.011  0.023  0.239 :     95
MAR.21/86         :        1.040  0.004   -0.010 :          1.026  0.015  0.254 :    106
APR.08/86         :        1.063  0.023    0.013 :          1.050  0.024  0.278 :    124
APR.15/86         :        1.065  0.002    0.015 :          1.060  0.010  0.288 :    131
MAY.05/86         :        1.072  0.007    0.022 :          1.070  0.010  0.298 :    151
MAY.20/86         :        1.028 -0.044   -0.022 :          1.060 -0.010  0.288 :    166
JUN.05/86         :        1.028  0.000   -0.022 :          1.037 -0.023  0.265 :    181
JUN.23/86         :        1.028  0.000   -0.022 :          1.038  0.001  0.266 :    199
SEP.15/86         :        1.174  0.146    0.124 :          1.024 -0.014  0.252 :    283
OCT.14/86         :        1.195  0.021    0.145 :          2.024  1.000  1.252 :    312
OCT.29/86         :        1.208  0.013    0.158 :15'1.5"   2.050  0.026  1.278 :    327
NOV.12/86         :        1.216  0.008    0.166 : 15'3"    0.743  0.000  1.278 :    341
DEC.19/86         :        1.224  0.008    0.174 :          0.810  0.000  1.278 :    378
JAN.27/87ANCHOR FI: BENT         -1.224   -1.050 :                -0.810  0.468 :
           WASTE DUM:ED ONTO WIRES  0.000   -1.050 :                 0.000  0.468 :
```

1803 LEVEL, 330 STOPE, HOLE #5

EXTENSEOMETER MONITORING

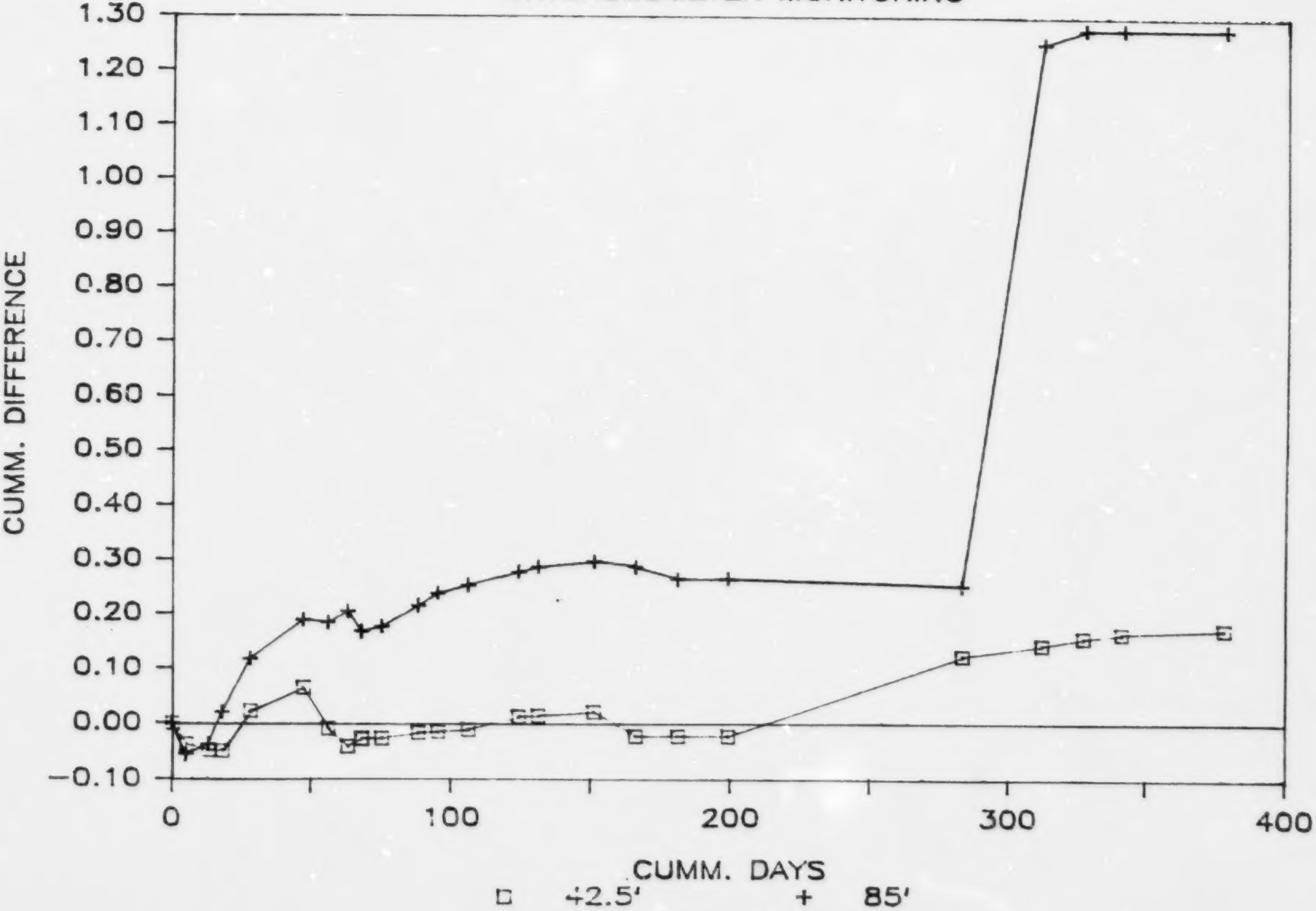


FIG. 2F.13

EXTENSEOMETER MONITORING RECORD

LEVEL---- 1803 INSTAL-NOV.25./85
STOPE---- 330
HOLE NO.- 6
NO.GAUGES 2

		ANCHOR SET 21'.5"				ANCHOR SET 46'.5"				
DATE	CO-AXIAL READ	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	CUMM DAYS
DEC.5/85	46'.5"	26'9"	1.758	0.000	0.000	26'6"	1.011	0.000	0.000	0
DEC.10/85			1.700	-0.058	-0.058		1.021	0.010	0.010	5
DEC.18/85			1.708	0.008	-0.050		1.216	0.195	0.205	13
DEC.23/85			1.71	0.002	-0.048		1.204	-0.012	0.193	18
JAN.02/86			1.670	-0.040	-0.088		1.228	0.024	0.217	28
JAN.21/86			1.687	0.017	-0.071		1.172	-0.056	0.161	47
JAN.30/86			1.668	-0.019	-0.090		1.206	0.034	0.195	56
FEB.06/86			1.710	0.042	-0.048		1.222	0.016	0.211	63
FEB.11/86			1.695	-0.015	-0.063		1.240	0.018	0.229	68
FEB.11/86		27'1.5"	0.400	0.000	-0.063	26'9"	0.500	0.000	0.229	68
FEB.18/86			0.326	-0.074	-0.137		0.465	-0.035	0.194	75
MAR.03/86			0.250	-0.076	-0.213		0.426	-0.039	0.155	88
MAR.10/86			0.306	0.056	-0.157		0.504	0.078	0.233	95
MAR.21/86			0.304	-0.002	-0.159		0.505	0.001	0.234	106
APR.08/86		27'3"	1.537	0.000	-0.159	26'10.5"	1.723	0.000	0.234	124
APR.15/86			1.540	0.003	-0.156		1.730	0.007	0.241	131
MAY.07/86		20 10.5	0.791	0.000	-0.156	20'6"	0.938	0.000	0.241	153
MAY.16.86			0.790	-0.001	-0.157		0.948	0.010	0.251	162
MAY.20/86			0.790	0.000	-0.157		0.948	0.000	0.251	166
JUN.05/86			0.814	0.024	-0.133		1.000	0.052	0.303	181
JUN.23/86			0.815	0.001	-0.132		1.000	0.000	0.303	199
SEP.15/86			0.860	0.045	-0.087		1.055	0.055	0.358	283
NOV.12/86			0.861	0.001	-0.086		1.060	0.005	0.363	341
DEC.19/86			0.880	0.019	-0.067		1.062	0.002	0.365	378
JAN.27/87			0.854	-0.026	-0.093		1.040	-0.022	0.343	417

1803 LEVEL, 330 STOPE, HOLE #6

EXTENSEOMETER MONITORING

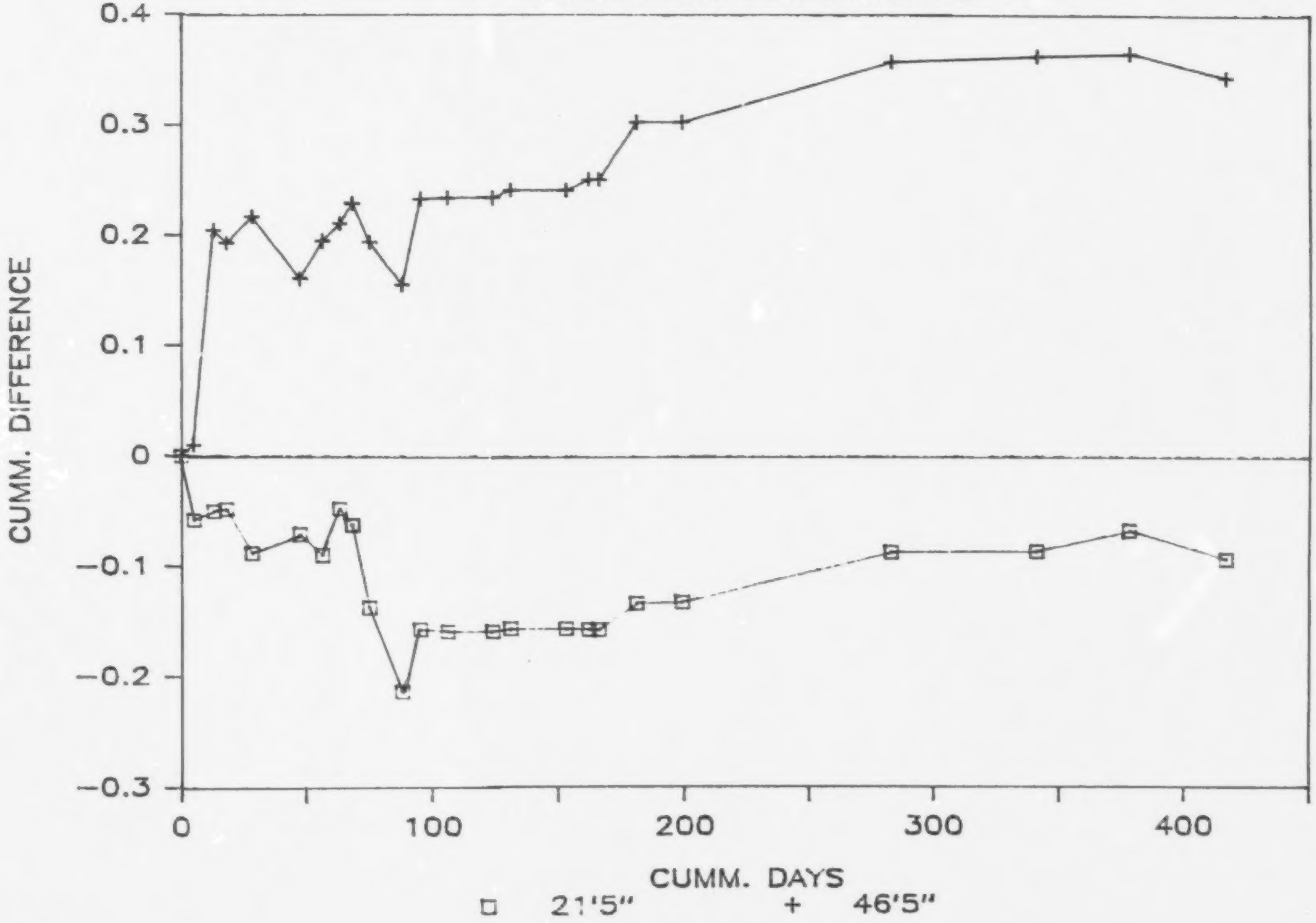


FIG. 2F.15

FIG. 2F.16

EXTENSEOMETER MONITORING RECORD

LEVEL---- 1803 INSTAL-NOV.25./85
STOPE---- 330
HOLE NO.- 7
NO.GAUGES 2

		ANCHOR SET 25				ANCHOR SET 68				
DATE	CO-AXIAL READ	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	TAPE READ.	DIAL READ	DIFF	CUMM DIFF.	
DEC.5/85	68'.0"	18'6"	0.720	0.000	0.000	17'7.5"	1.173	0.000	0.000	0
DEC.10/85			0.865	0.145	0.145		1.163	-0.010	-0.010	5
DEC.18/85			0.864	-0.001	0.144		1.153	-0.010	-0.020	13
DEC.23/85			0.86	-0.004	0.140		1.200	0.047	0.027	18
JAN.02/86			0.870	0.010	0.150		1.274	0.074	0.101	28
JAN.21/86			0.897	0.027	0.177		1.242	-0.032	0.069	47
JAN.30/86			0.906	0.009	0.186		1.224	-0.018	0.051	56
FEB.06/86			0.910	0.004	0.190		1.200	-0.024	0.027	63
FEB.11/86			0.910	0.000	0.190		1.050	-0.150	-0.123	68
FEB.11/86		18'9"	0.355	0.000	0.190	17'10.5"	0.437	0.000	-0.123	68
FEB.18/86			0.295	-0.060	0.130		0.378	-0.059	-0.182	75
MAR.03/86			0.275	-0.020	0.110		0.384	0.006	-0.176	88
MAR.10/86			0.275	0.000	0.110		0.413	0.029	-0.147	95
MAR.21/86			0.275	0.000	0.110		0.420	0.007	-0.140	106
APR.08/86		18'10.5	1.330	0.000	0.110	18'00"	1.285	0.000	-0.140	124
APR.15/86			1.335	0.005	0.115		1.305	0.020	-0.120	131
MAY.05/86			1.310	-0.025	0.090		1.295	-0.010	-0.130	151
MAY.20/86			1.310	0.000	0.090		1.295	0.000	-0.130	166
JUN.05/86			1.333	0.023	0.113		1.344	0.049	-0.081	181
JUN.23/86			1.340	0.007	0.120		1.354	0.010	-0.071	199
SEP.15/86			1.353	0.013	0.133		1.368	0.014	-0.057	283
OCT.14/86			1.303	-0.050	0.083		1.268	-0.100	-0.157	312
OCT.29/86			1.340	0.037	0.120		1.354	0.086	-0.071	327
NOV.12/86			1.314	-0.026	0.094		1.363	0.009	-0.062	341
DEC.19/86			1.295	-0.019	0.075		1.365	0.002	-0.060	378
JAN.27/87			1.436	0.141	0.216		1.790	0.425	0.365	417

1803 LEVEL, 330 STOPE, HOLE #7

EXTENSEOMETER MONITORING

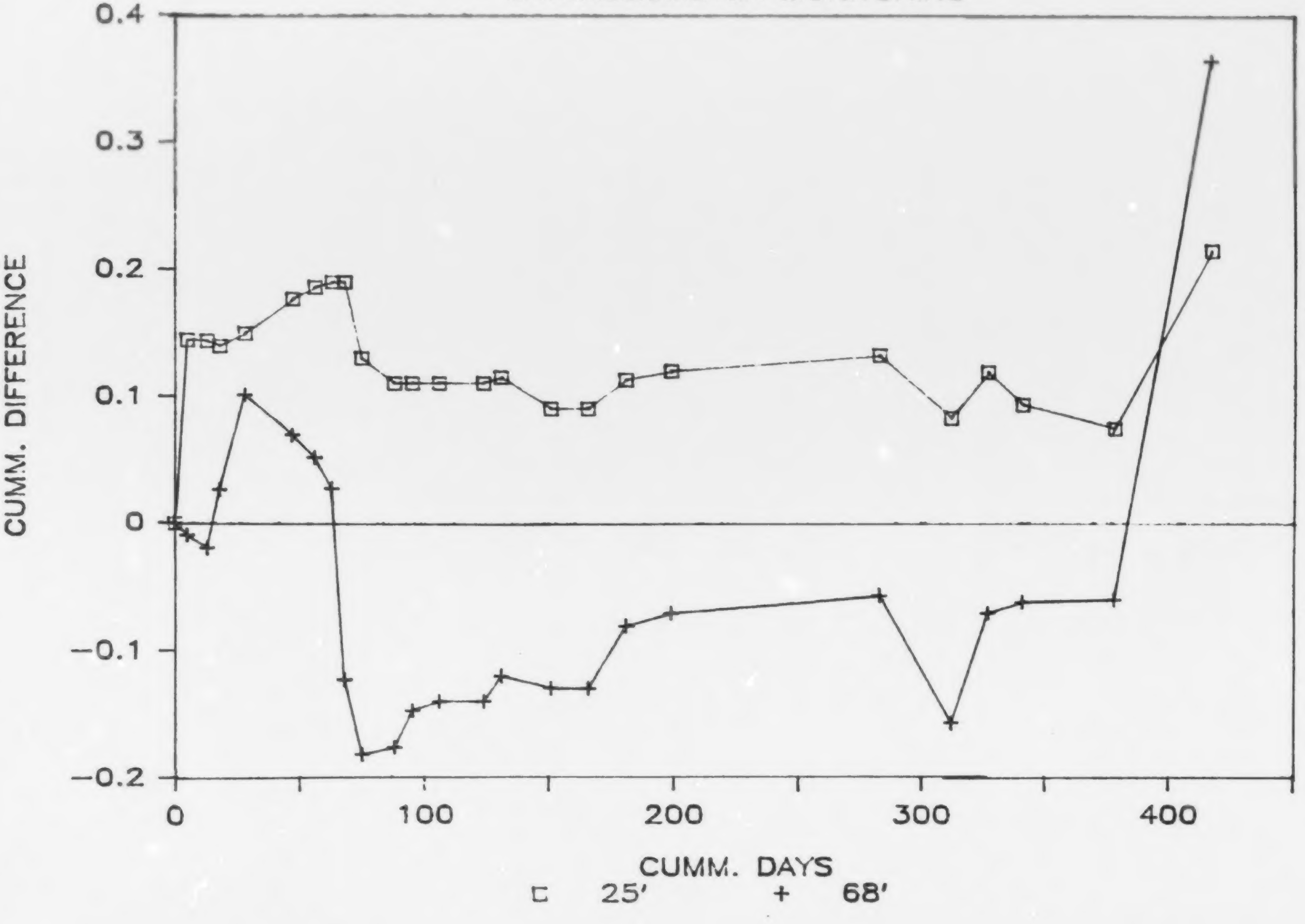


FIG. 2F.17

FIG. 2F.18

VIBRATING WIRE STRESS METER RECORD

CALCULATE FROM RDG.-------- 4350

STOPE----ST330 1675 SOUTH END
HOLE NO.- 61
DIP------
STRESS DIRECTION--

ROCK TYPE --------
MODULUS----------- 2000000
GUAGE-------------I930-1880
DEPTH FROM COLLAR- 30

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUM. DAYS
XX	XX/XX		XXXX						
1	MAR14	X	4350	0	4350	0.0	0	0	0
2	MAY16		4292	-58	4321	0.5	-31	-31	63
3	JUN24		4284	-66	4317	0.5	-35	-35	102
4	JUL09		4280	-70	4315	0.5	-37	-37	117
5	JUL10		4280	-70	4315	0.5	-37	-37	118
6	AUG13		4274	-76	4312	0.5	-40	-40	152
7	AUG19		4273	-77	4312	0.5	-41	-41	158
8	AUG23		4281	-69	4316	0.5	-36	-36	162
9	AUG27	X	2433	-1917	3392	1.3	-2466	-2466	166
10	AUG29		2433	0	2433	0.0	0	-2466	168
11	OCT24		2399	-34	2416	3.0	-102	-2568	232
12	OCT29		2398	-35	2416	3.0	-106	-2571	237
13	NOV13		2396	-37	2415	3.0	-112	-2577	252
14	NOV25		2391	-42	2412	3.0	-127	-2593	264
15	DEC05		2391	-42	2412	3.0	-127	-2593	274
16	DEC10		2386	-47	2410	3.0	-143	-2609	279
17	DEC18		2372	-61	2403	3.1	-187	-2653	287
18	DEC23		2265	-168	2349	3.3	-552	-3018	292
19	JAN02		2252	-181	2343	3.3	-600	-3066	302
20	JAN21		2248	-185	2341	3.3	-615	-3081	321
21	FEB06		2245	-188	2339	3.3	-626	-3092	337
22	FEB18		2244	-189	2339	3.3	-630	-3096	349
23	MAR03		2248	-185	2341	3.3	-615	-3081	362
24	MAR10		2248	-185	2341	3.3	-615	-3081	369
25	MAR21		2250	-183	2342	3.3	-607	-3073	380
26	APR08		2256	-177	2345	3.3	-585	-3051	398
27	APR15		2255	-178	2344	3.3	-589	-3055	405
28	MAY05		2265	-168	2349	3.3	-552	-3018	425
29	MAY20		2267	-166	2350	3.3	-545	-3010	440
30	JUN05		2267	-166	2350	3.3	-545	-3010	455
31	JUN23		2267	-166	2350	3.3	-545	-3010	473
32	SEP15		2266	-167	2350	3.3	-548	-3014	557
33	SEP29		2267	-166	2350	3.3	-545	-3010	571
34	OCT14		2267	-166	2350	3.3	-545	-3010	586
35	OCT29		2267	-166	2350	3.3	-545	-3010	602
36	NOV12		2267	-166	2350	3.3	-545	-3010	616
37	DEC19		2267	-166	2350	3.3	-545	-3010	653
38	JAN06		2266	-167	2350	3.3	-548	-3014	671
39	JAN27		2268	-165	2351	3.3	-541	-3007	692
40	MAR04		2268	-165	2351	3.3	-541	-3007	728

STOPE 330 1675 HOLE #61

STARTED MARCH 14, 1985

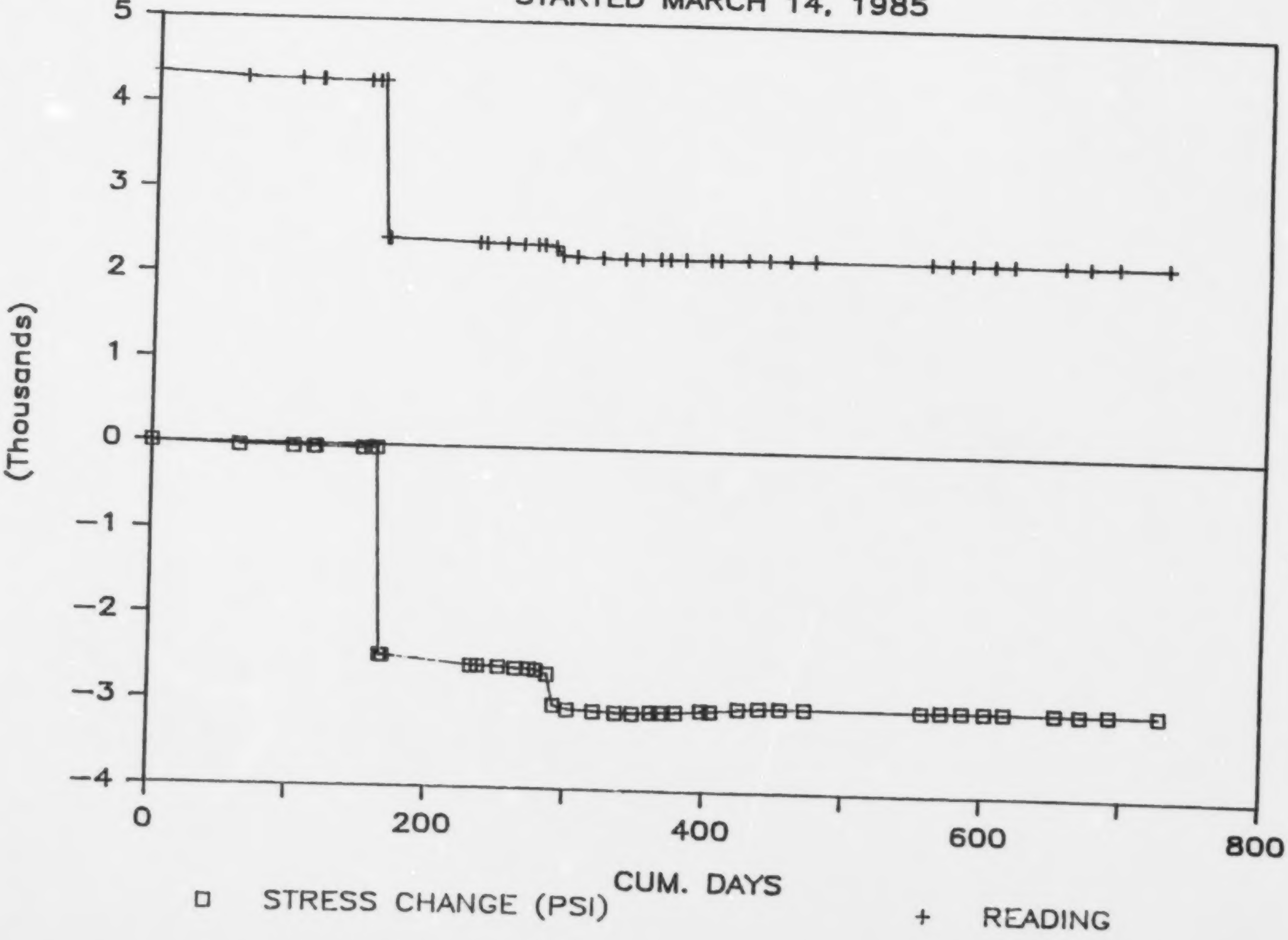


FIG. 2F.19

FIG. 2F.20

VIBRATING WIRE STRESS METER RECORD

CALCULATE FROM RDG.-------- 1967

STOPE----ST330 1675 SOUTH END
HOLE NO.- 62
DIP------
STRESS DIRECTION--

ROCK TYPE --------
MODULUS---------- 2000000
GUAGE------------1930-1880
DEPTH FROM COLLAR- 40

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUM. DAYS
II	II/II		IIII						
1	MAR14	I	3360	0	3360	0.0	0	0	0
2	MAY16		3322	-38	3341	1.1	-43	-43	63
3	JUN24		3320	-40	3340	1.1	-46	-46	102
4	JUL09		3316	-44	3338	1.1	-50	-50	117
5	JUL10		3316	-44	3338	1.1	-50	-50	118
6	AUG13		3314	-46	3337	1.1	-53	-53	152
7	AUG19		3314	-46	3337	1.1	-53	-53	158
8	AUG23		3318	-42	3339	1.1	-48	-48	162
9	AUG27	I	1886	-1474	2623	2.8	-4090	-4090	166
10	AUG29		1886	0	1886	0.0	0	-4090	168
11	OCT24		1869	-17	1878	6.4	-109	-4199	232
12	OCT29		1868	-18	1877	6.4	-116	-4206	237
13	NOV13		1868	-18	1877	6.4	-116	-4206	252
14	NOV25		1866	-20	1876	6.4	-129	-4219	264
15	DEC05		1865	-21	1876	6.4	-135	-4225	274
16	DEC10		1862	-24	1874	6.5	-155	-4245	279
17	DEC18		1853	-33	1870	6.5	-215	-4305	287
18	DEC23		1837	-49	1862	6.6	-323	-4413	292
19	JAN02		1837	-49	1862	6.6	-323	-4413	302
20	JAN21		1840	-46	1863	6.6	-302	-4392	321
21	FEB06		1839	-47	1863	6.6	-309	-4399	337
22	FEB18		1852	-34	1869	6.5	-221	-4311	349
23	MAR03		1860	-26	1873	6.5	-168	-4258	362
24	MAR10		1861	-25	1874	6.5	-162	-4252	369
25	MAR21		1859	-27	1873	6.5	-175	-4265	380
26	APR08		1856	-30	1871	6.5	-195	-4285	398
27	APR15		1854	-32	1870	6.5	-208	-4298	405
28	MAY05		1851	-35	1869	6.5	-228	-4318	425
29	MAY20		1847	-39	1867	6.5	-255	-4345	440
30	JUN05		1847	-39	1867	6.5	-255	-4345	455
31	JUN23		1848	-38	1867	6.5	-248	-4338	473
32	SEP15		1848	-38	1867	6.5	-248	-4338	557
33	SEP29		1847	-39	1867	6.5	-255	-4345	571
34	OCT14		1848	-38	1867	6.5	-248	-4338	586
35	OCT29		1847	-39	1867	6.5	-255	-4345	602
36	NOV12		1847	-39	1867	6.5	-255	-4345	614
37	NOV28		1847	-39	1867	6.5	-255	-4345	630
38	DEC19		1849	-37	1868	6.5	-241	-4331	651
39	JAN06		1849	-37	1868	6.5	-241	-4331	669
40	JAN27		1845	-41	1866	6.5	-268	-4358	690
41	MAR04		1845	-41	1866	6.5	-268	-4358	726

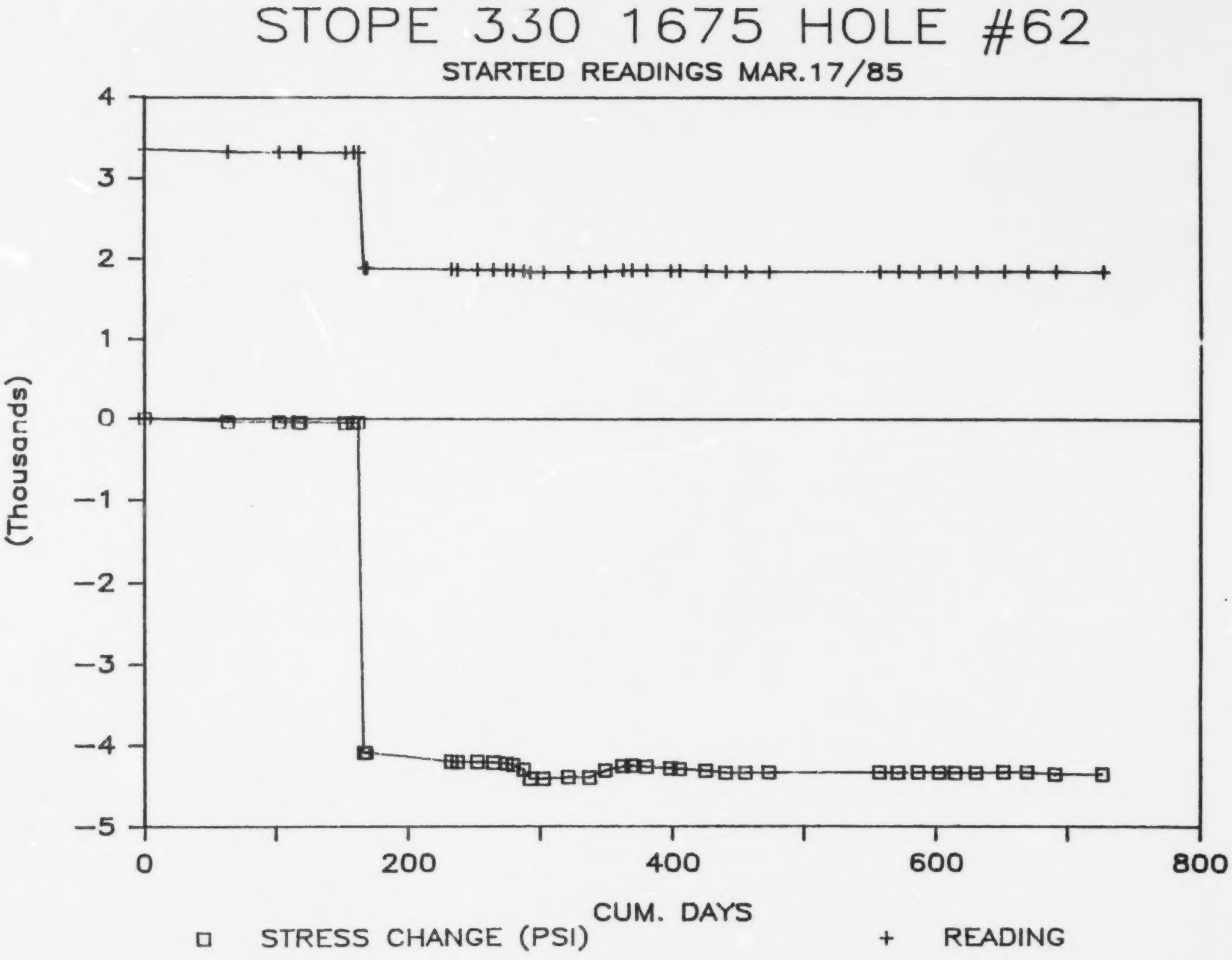

STOPE 330 1675 HOLE #62
STARTED READINGS MAR.17/85
4
3
2
1
0
−1
−2
−3
−4
−5
(Thousands)
0
200
400
600
800
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.21

FIG. 2F.22

```
                VIBRATING WIRE STRESS M TER RECORD
                                   CALCULATE FROM RDG.--------     2548
STOPE----ST330 1675                              ROCK TYPE --------
HOLE NO.-      71                                MODULUS----------- 2000000
DIP------                                        GUAGE-------------I930-1880
STRESS DIRECTION--                               DEPTH FROM COLLAR-      30
-----------------------------------------------------------------------------
 RDG.           IN             CUMM.    AVG.  SENSITIV STRESS  CHANGE    CUMM.
  NO.    DATE  READ  READING   DIFF.    RDG   PSI/UNIT CHANGE   TOTAL    DAYS
-----------------------------------------------------------------------------
  XX    XX/XX         XXXX
   1    MAR14   I      4090       0     4090     0.0       0       0       0
   2    MAY16          4119      29     4105     0.6      18      18      63
   3    JUN24          4120      30     4105     0.6      18      18     102
   4    JUL9           4120      30     4105     0.6      18      18     117
   5    JUL10          4120      30     4105     0.6      18      18     118
   6    AUG13          4123      33     4107     0.6      20      20     152
   7    AUG19          4119      29     4105     0.6      18      18     158
   8    AUG23          4121      31     4106     0.6      19      19     162
   9    AUG27   I      2340   -1750     3215     1.5   -2609   -2609     166
  10    AUG29          2339      -1     2340     3.3      -3   -2613     168
  11    OCT24          2359      19     2350     3.3      62   -2547     232
  12    OCT29          2359      19     2350     3.3      62   -2547     237
  13    NOV13          2365      25     2353     3.3      82   -2528     252
  14    NOV25          2368      28     2354     3.3      91   -2518     264
  15    DEC05          2368      28     2354     3.3      91   -2518     274
  16    DEC10          2368      28     2354     3.3      91   -2518     279
  17    DEC18          2376      36     2358     3.2     117   -2493     287
  18    DEC23          2451     111     2396     3.1     343   -2266     292
  19    JAN02          2466     126     2403     3.1     386   -2223     302
  20    JAN21          2455     115     2398     3.1     355   -2254     321
  21    JAN27          2444     104     2392     3.1     323   -2286     327
  22    FEB06          2432      92     2386     3.1     288   -2321     337
  23    FEB18          2374      34     2357     3.2     110   -2499     349
  24    MAR03          2338      -2     2339     3.3      -7   -2616     362
  25    MAR10          2329     -11     2335     3.3     -37   -2646     369
  26    MAR21          2317     -23     2329     3.4     -77   -2687     380
  27    APR08          2305     -35     2323     3.4    -119   -2728     398
  28    APR15          2300     -40     2320     3.4    -136   -2745     405
  29    MAY05          2293     -47     2317     3.4    -161   -2770     425
  30    MAY20          2292     -48     2316     3.4    -164   -2774     440
  31    JUN05          2293     -47     2317     3.4    -161   -2770     455
  32    JUN23          2292     -48     2316     3.4    -164   -2774     473
  33    SEP15          2288     -52     2314     3.4    -178   -2788     557
  34    SEF29          2287     -53     2314     3.4    -182   -2791     571
  35    OCT14          2286     -54     2313     3.4    -185   -2795     586
  36    OCT29          2286     -54     2313     3.4    -185   -2795     602
  37    NOV12          2286     -54     2313     3.4    -185   -2795     614
  38    DEC19          2285     -55     2313     3.4    -189   -2798     651
  39    MAR04          2373      33     2357     3.2     107   -2502     744
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STOPE 330 1675 HOLE #71

STARTED READINGS MAR.14/85

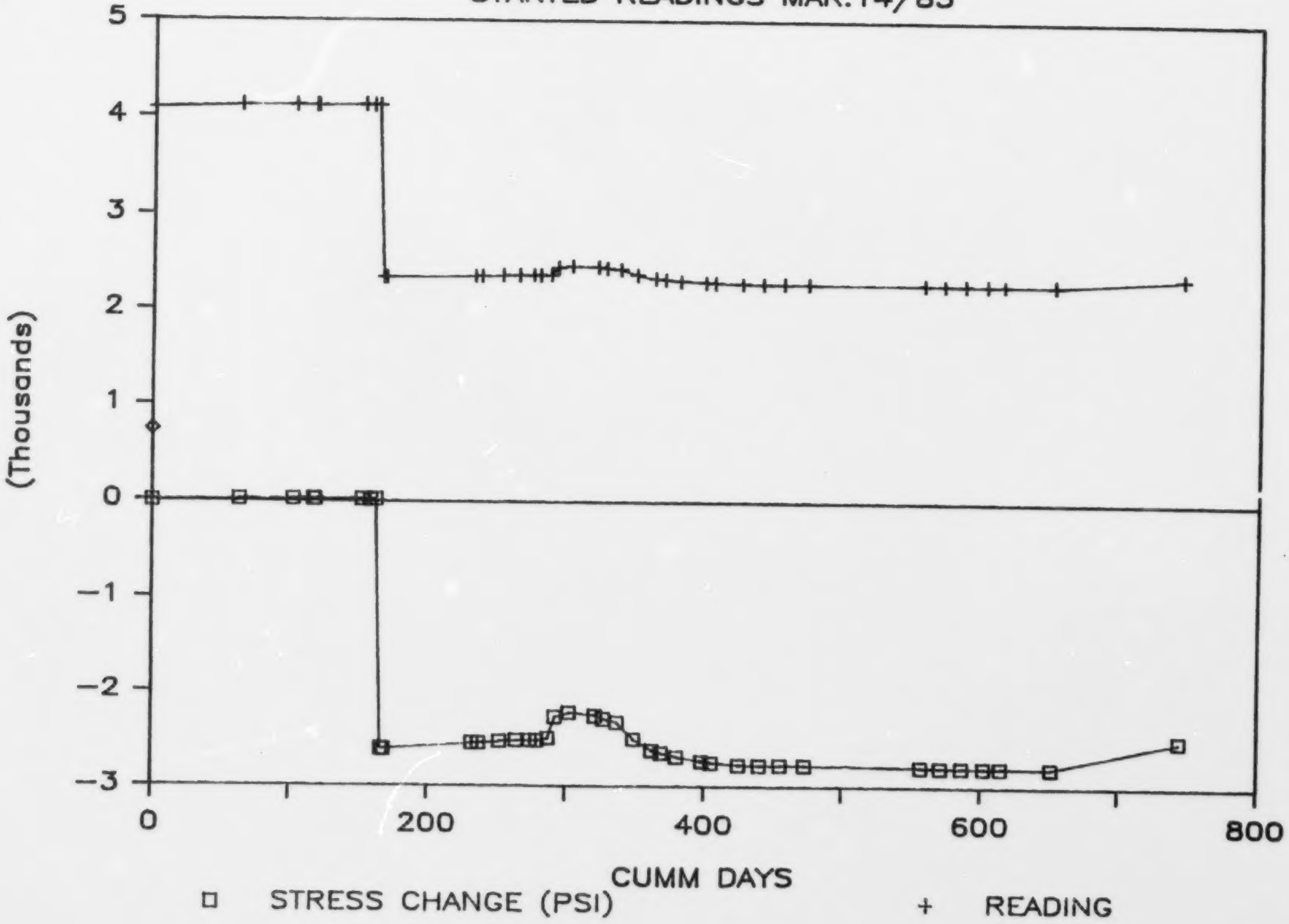


FIG. 2F.23

FIG. 2F.24

VIBRATING WIRE STRESS ETER RECORD

CALCULATE FROM RDG.-------- 2295

STOPE----ST330 1675
HOLE NO.- 72
DIP------
STRESS DIRECTION--

ROCK TYPE -------- .
MODULUS----------- 2000000
GUAGE-------------I930-1880
DEPTH FROM COLLAR- 40

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUMM. DAYS
XX	XX/XX		XXXX						
1	MAR14	X	4656	0	4656	0.0	0	0	0
2	MAY16		4657	1	4657	0.4	0	0	63
3	JUN24		4651	-5	4654	0.4	-2	-2	102
4	JUL9		4649	-7	4653	0.4	-3	-3	117
5	JUL10		4649	-7	4653	0.4	-3	-3	118
6	AUG13		4644	-12	4650	0.4	-5	-5	152
7	AUG19		4642	-14	4649	0.4	-6	-6	158
8	AUG23		4645	-11	4651	0.4	-5	-5	162
9	AUG27	X	2636	-2020	3646	1.0	-2077	-2077	166
10	AUG29		2634	-2	2635	2.3	-5	-2082	168
11	OCT24		2587	-49	2612	2.4	-117	-2194	232
12	OCT29		2586	-50	2611	2.4	-119	-2196	237
13	NOV13		2560	-76	2598	2.4	-184	-2261	252
14	NOV25		2555	-81	2596	2.4	-197	-2274	264
15	DEC05		2554	-82	2595	2.4	-199	-2277	274
16	DEC10		2556	-80	2596	2.4	-194	-2271	279
17	DEC18		2572	-64	2604	2.4	-154	-2231	287
18	DEC23		2584	-52	2610	2.4	-124	-2201	292
19	JAN02		2568	-68	2602	2.4	-164	-2241	302
20	JAN21		2558	-78	2597	2.4	-189	-2266	321
21	JAN27		2549	-87	2593	2.4	-212	-2289	32
22	FEB06		2541	-95	2589	2.5	-233	-2310	3.7
23	FEB18		2525	-111	2581	2.5	-275	-2352	349
24	MAR03		2501	-135	2569	2.5	-339	-2416	362
25	MAR10		2496	-140	2566	2.5	-353	-2430	369
26	MAR21		2386	-250	2511	2.7	-674	-2751	380
27	APR08		2474	-162	2555	2.6	-413	-2491	398
28	APR15		2470	-166	2553	2.6	-425	-2502	405
29	MAY05		2458	-178	2547	2.6	-459	-2536	425
30	MAY20		2450	-186	2543	2.6	-482	-2559	440
31	JUN05		2447	-189	2542	2.6	-490	-2568	455
32	JUN23		2446	-190	2541	2.6	-493	-2570	473
33	SEP15		2452	-184	2544	2.6	-476	-2553	557
34	SEP29		2453	-183	2545	2.6	-473	-2550	571
35	OCT14		2454	-182	2545	2.6	-470	-2547	586
36	OCT29		2455	-181	2546	2.6	-467	-2544	602
37	NOV12		2457	-179	2547	2.6	-462	-2539	614
38	DEC19		2457	-179	2547	2.6	-462	-2539	651
39	MAR04		2280	-356	2458	2.9	-1029	-3106	708

STOPE 330 1675 HOLE #72

STARTED READING MAR.14/85

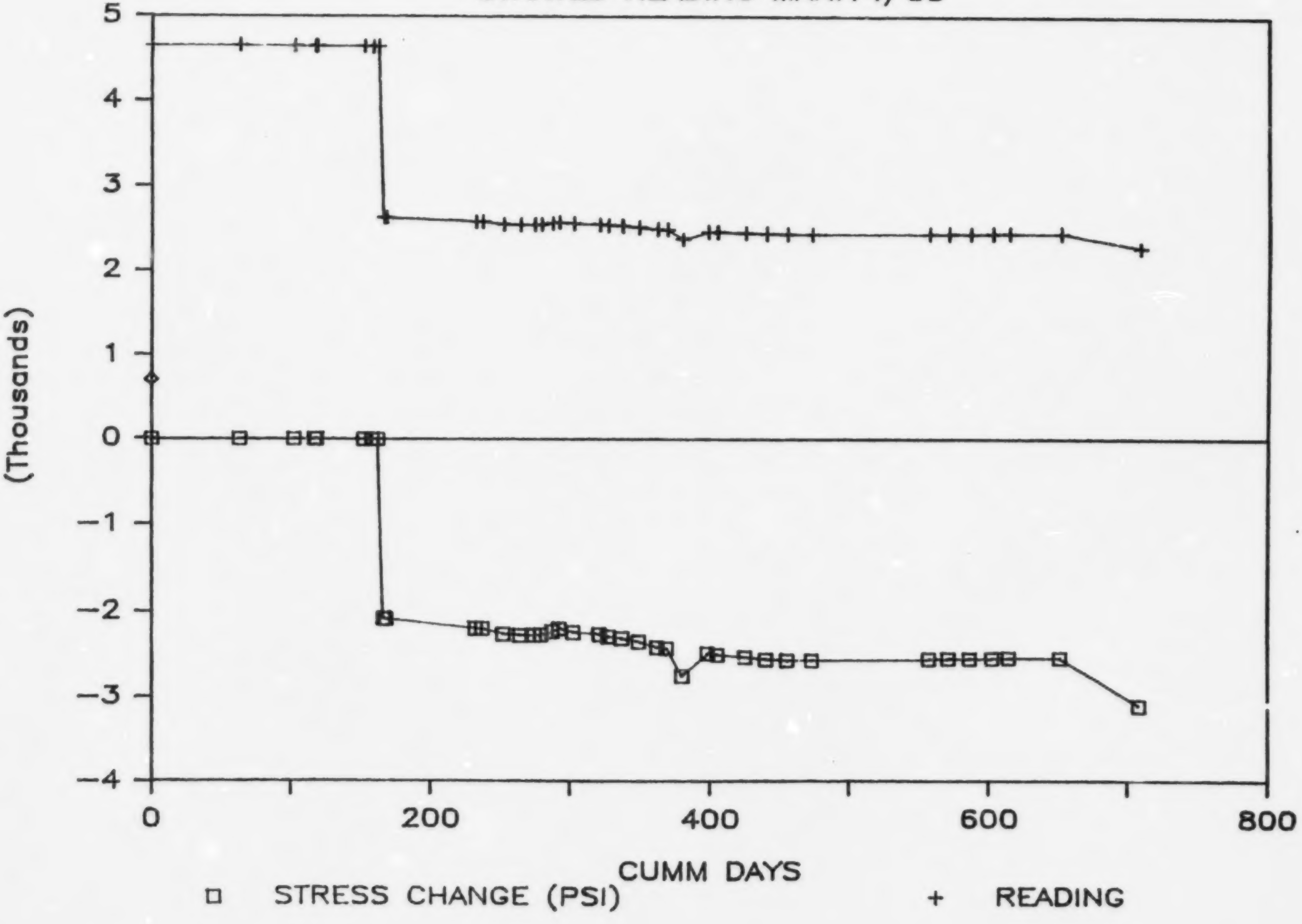


FIG. 2F.25

FIG. 2F.26

VIBRATING WIRE STRESS ETER RECORD

CALCULATE FROM RDG.-------- 5345

STOPE----ST330 1803 SOUTH
ROCK TYPE --------
HOLE NO.- 501
MODULUS----------- 2000000
DIP------ +90
GUAGE-------------X930-1880
STRESS DIRECTION--
DEPTH FROM COLLAR- 30

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUMM. DAYS
XX	XX/XX		XXXX						
1	MAY16	X	5345	0	5345	0.0	0	0	0
2	JUL10		5381	36	5363	0.3	10	10	55
3	AUG13		5414	69	5380	0.3	19	19	89
4	AUG19		5434	89	5390	0.3	24	24	95
5	AUG23		5458	113	5402	0.3	30	30	99
6	AUG27	X	3110	-2235	4228	0.6	-1453	-1453	103
7	AUG29		3113	3	3112	1.4	4	-1448	105
8	OCT24		3232	122	3171	1.3	163	-1290	161
9	OCT29		3235	125	3173	1.3	166	-1286	166
10	NOV13		3245	135	3178	1.3	179	-1274	181
11	NOV25		3250	140	3180	1.3	185	-1267	193
12	DEC05		3277	167	3194	1.3	218	-1234	203
13	DEC10		3297	187	3204	1.3	242	-1211	208
14	DEC18		3352	242	3231	1.3	306	-1147	216
15	DEC23		3595	485	3353	1.1	553	-900	221
16	JAN02		3676	566	3393	1.1	624	-828	231
17	JAN21		3725	615	3418	1.1	665	-787	250
18	FEB06		3760	650	3435	1.1	694	-759	267
19	FEB18		3847	737	3479	1.0	761	-692	279
20	MAR03		3939	829	3525	1.0	827	-625	292
21	MAR10		3964	854	3537	1.0	844	-608	299
22	MAR21		3985	875	3548	1.0	859	-594	310
23	APR08		3991	881	3551	1.0	863	-590	329
24	APR15		3993	883	3552	1.0	864	-589	336
25	MAY05		3974	864	3542	1.0	851	-601	356
26	MAY20		3956	846	3533	1.0	839	-614	371
27	JUN05		3993	883	3552	1.0	864	-589	386
28	JUN23		3576	466	3343	1.1	535	-918	404
29	SEP15		2042	-1068	2576	2.7	-2898	-4350	488
30	SEP29		2042	-1068	2576	2.7	-2898	-4350	502
31	OCT14		2044	-1066	2577	2.7	-2888	-4341	517
32	OCT29		2055	-1055	2583	2.7	-2834	-4286	532
33	NOV12		2062	-1048	2586	2.7	-2600	-4252	546
34	DEC19		2065	-1045	2588	2.7	-2785	-4238	583
35	JAN06		2065	-1045	2588	2.7	-2785	-4238	601
36	MAR04		2064	-1046	2587	2.7	-2790	-4242	658

FIG. 2F.27

STOPE 330 1803 HOLE S01

STARTED MAY 16, 1985

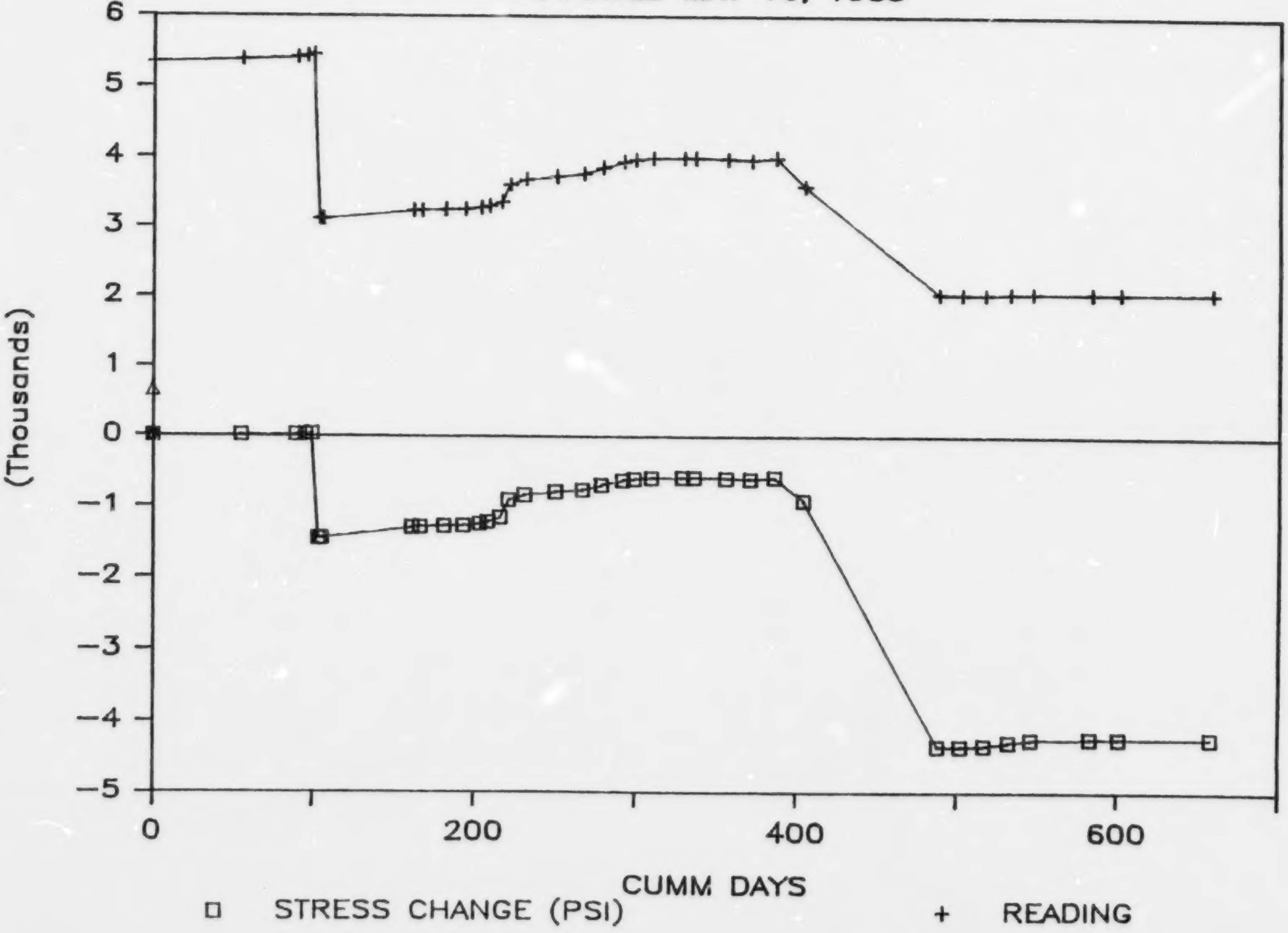


FIG. 2F.28

```
                 VIBRATING WIRE STRESS  ETER RECORD
                               CALCULATE FROM RDG.--------     6906
STOPE----ST330 1803 SOUTH                 ROCK TYPE --------
HOLE NO.-   S11                           MODULUS---------- 2000000
DIP------   +90                           GUAGE------------X930-1880
STRESS DIRECTION--                        DEPTH FROM COLLAR-      30
-------------------------------------------------------------------
 RDG.          INIT          CUMM.   AVG.  SENSITIV STRESS  CHANGE   CUMM.
  NO.   DATE   READ READING  DIFF.    RDG  PSI/UNIT CHANGE   TOTAL   DAYS
-------------------------------------------------------------------
  XX    XX/XX        XXXX
   1    MAR14   X    6906      0     6906     0.0       0       0      0
   2    MAY16        7021    115     6964     0.1      14      14     63
   3    JUL10        7094    188     7000     0.1      23      23    118
   4    AUG13        7116    210     7011     0.1      26      26    152
   5    AUG19        7182    276     7044     0.1      34      34    158
   6    AUG23        7255    349     7081     0.1      42      42    162
   7    AUG27   X    2870  -4036     4888     0.5   -2133   -2133    166
   8    AUG29        2881     11     2876     1.8      20   -2114    168
   9    OCT24   X    4287   1417     3584     1.0    1403    -710    224
  10    OCT29        4286     -1     4287     0.5      -1    -711    229
  11    NOV13        4289      2     4288     0.5       1    -709    244
  12    NOV25        4294      7     4291     0.5       4    -707    256
  13    DEC05        4383     96     4335     0.5      50    -660    266
  14    DEC10        4432    145     4360     0.5      74    -636    271
  15    DEC18        4554    267     4421     0.5     132    -579    279
  16    DEC23        4720    433     4504     0.5     202    -508    284
  17    JAN02        4657    370     4472     0.5     176    -534    294
  18    JAN21        4651    364     4469     0.5     174    -537    313
  19    FEB06        4664    377     4476     0.5     179    -531    330
  20    FEB18        4714    427     4501     0.5     200    -510    342
  21    MAR03        4787    500     4537     0.5     229    -482    355
  22    MAR10        4787    500     4537     0.5     229    -482    362
  23    MAR21        4785    498     4536     0.5     228    -482    373
  24    APR08        4781    494     4534     0.5     226    -484    391
  25    APR15        4767    480     4527     0.5     221    -489    398
  26    MAY05        4743    456     4515     0.5     212    -499    418
  27    MAY20        4754    467     4521     0.5     216    -494    433
  28    JUN05        4787    500     4537     0.5     229    -482    448
  29    JUN23        4252    -35     4270     0.5     -19    -729    466
  30    SEP15        2209  -2078     3248     1.5   -3197   -3908    550
  31    SEP29        2190  -2097     3239     1.6   -3273   -3983    564
  32    OCT14        2187  -2100     3237     1.6   -3285   -3996    579
  33    OCT29        2186  -2101     3237     1.6   -3289   -4000    594
  34    NOV12        2185  -2102     3236     1.6   -3293   -4004    608
  35    DEC19        2193  -2094     3240     1.6   -3261   -3971    645
  36    JAN06        2197  -2090     3242     1.6   -3245   -3955    663
  37    MAR04        2106  -2181     3197     1.7   -3633   -4344    720
```

FIG. 2F.29

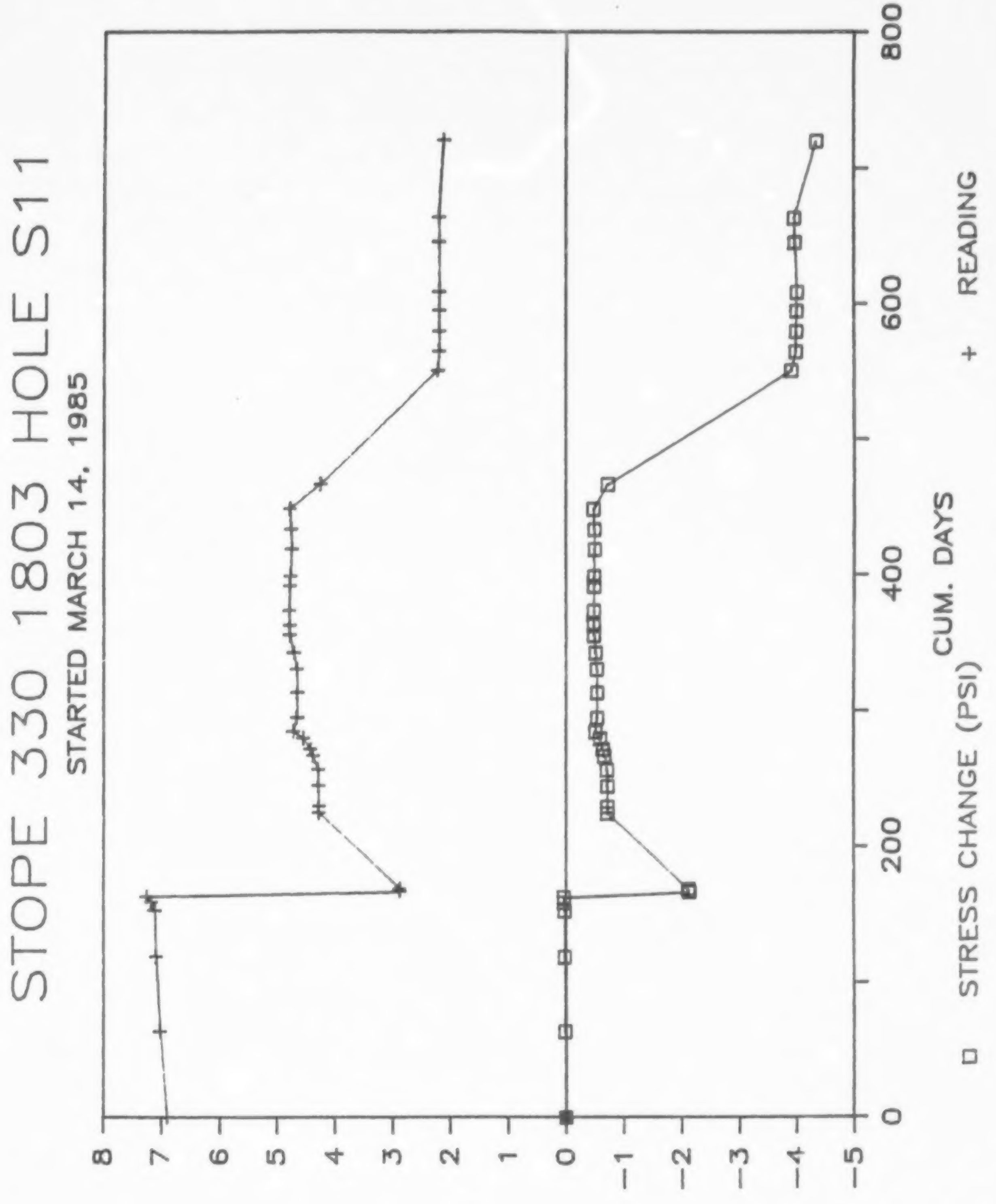
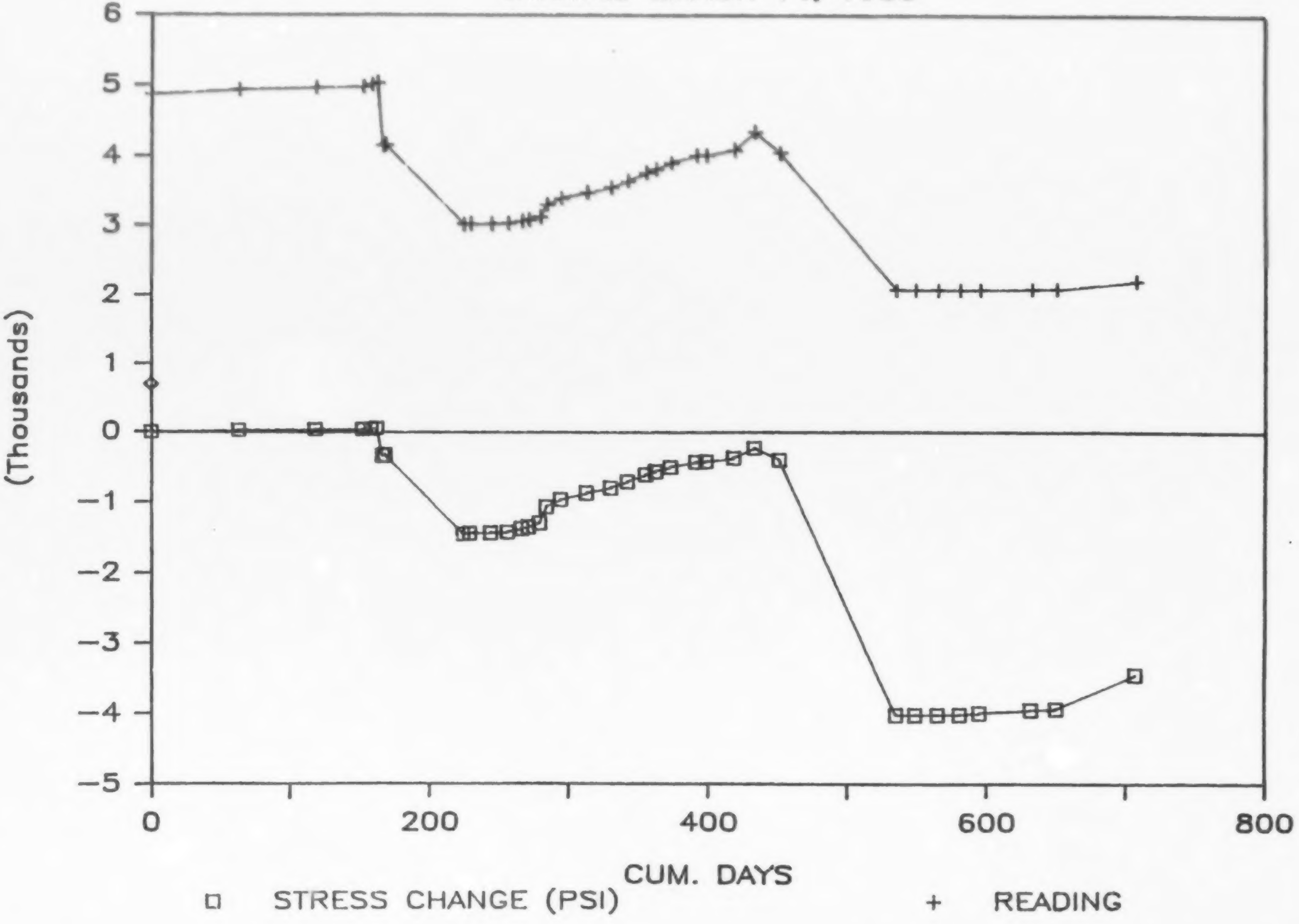

STOPE 330 1803 HOLE S11
STARTED MARCH 14, 1985
(Thousands)
8
7
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
200
400
600
800
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.30

```
                  VIBRATING WIRE STRESS METER RECORD
                                  CALCULATE FROM RDG.--------    4874
STOPE----ST330 1803 SOUTH                    ROCK TYPE --------
HOLE NO.-   S12                              MODULUS----------- 2000000
DIP------   +90                              GUAGE-------------1930-1800
STRESS DIRECTION--                           DEPTH FROM COLLAR-      40
--------------------------------------------------------------------------
 RDG.          INIT          CUMM.    AVG.  SENSITIV STRESS  CHANGE   CUMM.
  NO.    DATE  READ READING  DIFF.     RDG  PSI/UNIT CHANGE   TOTAL   DAYS
--------------------------------------------------------------------------
  XX    XX/XX         XXXX                                                0
   1    MAR14   X     4874       0    4874     0.0       0       0       0
   2    MAY16         4935      61    4905     0.4      22      22      63
   3    JUL10         4968      94    4921     0.4      34      34     118
   4    AUG13         4981     107    4928     0.4      38      38     152
   5    AUG19         5002     128    4938     0.4      45      45     158
   6    AUG23         5035     161    4955     0.3      56      56     162
   7    AUG27   X     4143    -731    4509     0.5    -343    -343     166
   8    AUG29         4165      22    4154     0.6      13    -330     168
   9    OCT24   X     3012   -1153    3589     1.0   -1117   -1447     224
  10    OCT29         3015       3    3014     1.6       5   -1443     229
  11    NOV13         3022      10    3017     1.5      15   -1432     244
  12    NOV25         3029      17    3021     1.5      26   -1421     256
  13    DEC05         3061      49    3037     1.5      74   -1373     266
  14    DEC10         3077      65    3045     1.5      98   -1349     271
  15    DEC18         3118     106    3065     1.5     156   -1291     279
  16    DEC23         3296     284    3154     1.4     386   -1061     284
  17    JAN02         3388     376    3200     1.3     491    -956     294
  18    JAN21         3474     462    3243     1.3     581    -866     313
  19    FEB06         3548     536    3280     1.2     654    -793     330
  20    FEB18         3641     629    3327     1.2     739    -708     342
  21    MAR03         3762     750    3387     1.1     840    -607     355
  22    MAR10         3815     803    3414     1.1     882    -565     362
  23    MAR21         3903     891    3458     1.1     947    -500     373
  24    APR08         4014    1002    3513     1.0    1023    -424     391
  25    APR15         4018    1006    3515     1.0    1026    -422     398
  26    MAY05         4092    1080    3552     1.0    1073    -374     418
  27    JUN05         4349    1337    3681     0.9    1218    -229     433
  28    JUN23         4048    1036    3530     1.0    1045    -402     451
  29    SEP15         2078    -934    2545     2.8   -2578   -4025     535
  30    SEP29         2078    -934    2545     2.8   -2578   -4025     549
  31    OCT14         2078    -934    2545     2.8   -2578   -4025     565
  32    OCT29         2078    -934    2545     2.8   -2578   -4025     581
  33    NOV12         2084    -928    2548     2.7   -2549   -3997     595
  34    DEC19         2093    -919    2553     2.7   -2507   -3955     632
  35    JAN06         2095    -917    2554     2.7   -2498   -3945     650
  36    MAR04         2210    -802    2611     2.5   -2008   -3455     707
```



STOPE 330 1803 HOLE S12

STARTED MARCH 14, 1985

FIG. 2F.31

FIG. 2F.32

VIBRATING WIRE STRESS ETER RECORD

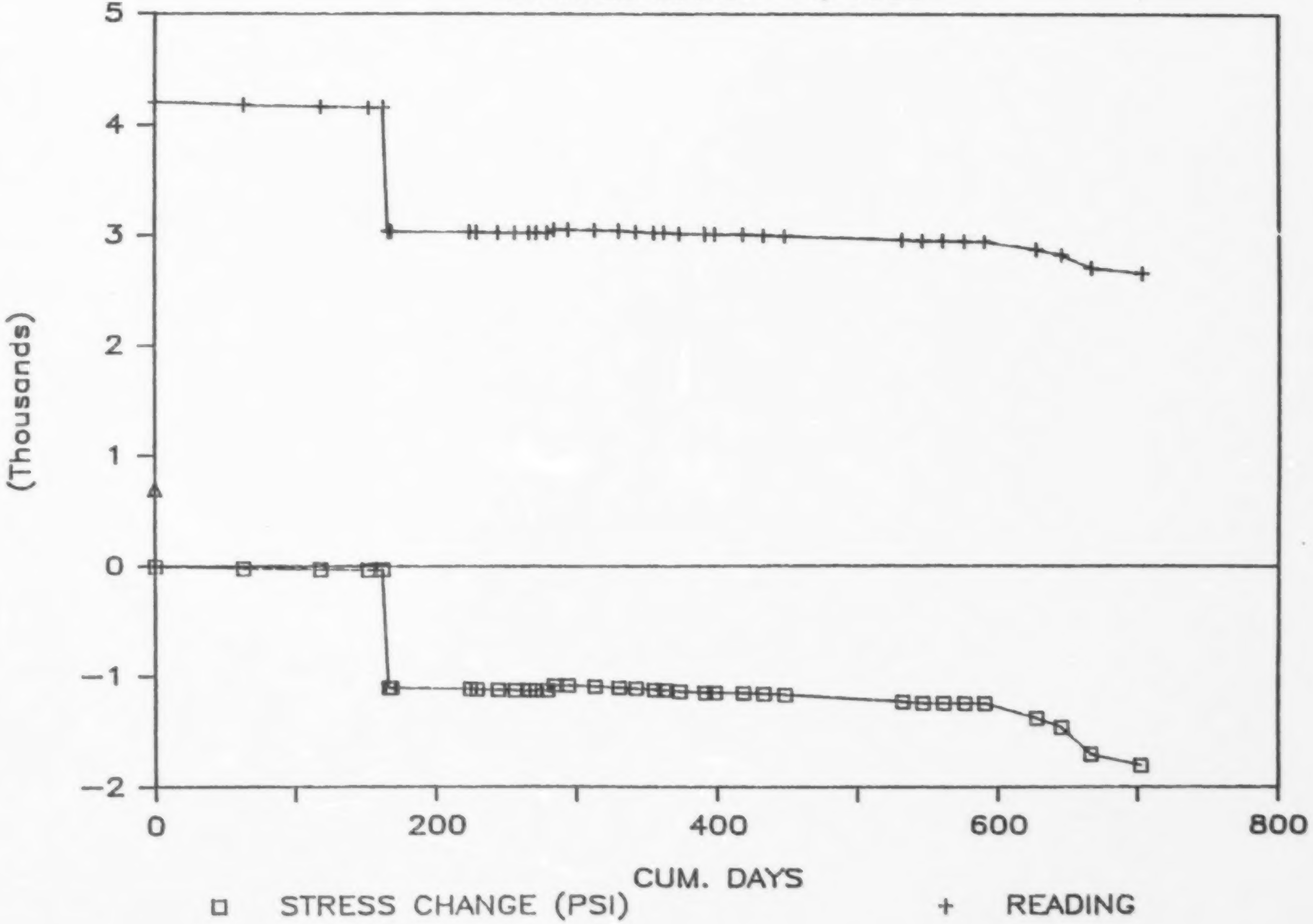
CALCULATE FROM RDG.-------- 4210

STOPE----ST330 1803 SOUTH
HOLE NO.- N11
DIP------ +90
STRESS DIRECTION--

ROCK TYPE --------
MODULUS----------- 2000000
GUAGE------------1930-1880
DEPTH FROM COLLAR- 30

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUMM. DAYS
XX	XX/XX		XXXX						0
1	MAR14	X	4210	0	4210	0.0	0	0	0
2	MAY16		4182	-28	4196	0.6	-16	-16	63
3	JUL10		4167	-43	4189	0.6	-25	-25	118
4	AUG13		4157	-53	4184	0.6	-31	-31	152
5	AUG23		4163	-47	4187	0.6	-27	-27	162
6	AUG27	X	3039	-1171	3625	0.9	-1101	-1101	166
7	AUG29		3039	0	3039	0.0	0	-1101	168
8	OCT24		3032	-7	3036	1.5	-11	-1112	224
9	OCT29		3030	-9	3035	1.5	-14	-1115	229
10	NOV13		3027	-12	3033	1.5	-18	-1120	244
11	NOV25		3025	-14	3032	1.5	-21	-1123	256
12	DEC05		3026	-13	3033	1.5	-20	-1121	266
13	DEC10		3025	-14	3032	1.5	-21	-1123	271
14	DEC18		3026	-13	3033	1.5	-20	-1121	279
15	DEC23		3055	16	3047	1.5	24	-1077	284
16	JAN02		3055	16	3047	1.5	24	-1077	294
17	JAN21		3048	9	3044	1.5	14	-1088	313
18	FEB06		3040	1	3040	1.5	2	-1100	330
19	FEB18		3035	-4	3037	1.5	-6	-1108	342
20	MAR03		3027	-12	3033	1.5	-18	-1120	355
21	MAR10		3026	-13	3033	1.5	-20	-1121	362
22	MAR21		3016	-23	3028	1.5	-35	-1137	373
23	APR08		3009	-30	3024	1.5	-46	-1148	391
24	APR15		3010	-29	3025	1.5	-45	-1146	398
25	MAY05		3008	-31	3024	1.5	-48	-1149	418
26	MAY20		3001	-38	3020	1.5	-59	-1160	433
27	JUN05		2996	-43	3018	1.5	-66	-1168	448
28	SEP15		2959	-80	2999	1.6	-126	-1228	532
29	SEP29		2951	-8	2955	17.4	-139	-1241	546
30	OCT14		2951	0	2951	ERR	-139	-1241	561
31	OCT29		2949	-2	2950	71.3	-143	-1244	576
32	NOV12		2949	0	2949	ERR	-143	-1244	590
33	DEC19		2872	-77	2911	3.6	-275	-1377	627
34	JAN06		2825	-47	2849	7.7	-362	-1463	645
35	JAN27		2707	-118	2766	5.1	-599	-1700	666
36	MAR04		2660	-47	2684	14.9	-702	-1804	702

FIG. 2F.33



STOPE 330 1803 HOLE N11
STARTED MARCH 14, 1985

FIG. 2F.34

```
                 VIBRATING WIRE STRESS METER RECORD
                                 CALCULATE FROM RDG.--------    5534
STOPE----ST330 1803 NORTH                    ROCK TYPE --------
HOLE NO.-   N12                              MODULUS----------- 2000000
DIP------   +90                              GUAGE------------1930-1880
STRESS DIRECTION--                           DEPTH FROM COLLAR-      40
-----------------------------------------------------------------------------------
 RDG.          INIT           CUMM.    AVG.   SENSITIV  STRESS   CHANGE    CUMM.
  NO.   DATE   READ READING   DIFF.     RDG   PSI/UNIT  CHANGE    TOTAL    DAYS
-----------------------------------------------------------------------------------
  XX    XX/XX         XXXX                                                    0
   1    MAR14   X     5534       0    5534       0.0        0        0        0
   2    MAY16         5458     -76    5496       0.3      -19      -19       63
   3    JUL10         5385    -149    5460       0.3      -39      -39      118
   4    AUG13         5347    -187    5441       0.3      -49      -49      152
   5    AUG23         5353    -181    5444       0.3      -48      -48      162
   6    AUG27   X     2365   -3169    3950       1.0    -3104    -3104      166
   7    AUG29         2365       0    2365       ERR        0    -3104      168
   8    OCT24         2357      -8    2361       3.2      -26    -3130      224
   9    OCT29         2356      -9    2361       3.2      -29    -3133      229
  10    NOV13         2355     -10    2360       3.2      -32    -3136      244
  11    NOV25         2353     -12    2359       3.2      -39    -3143      256
  12    DEC05         2353     -12    2359       3.2      -39    -3143      266
  13    DEC10         2352     -13    2359       3.2      -42    -3146      271
  14    DEC18         2352     -13    2359       3.2      -42    -3146      279
  15    DEC23         2353     -12    2359       3.2      -39    -3143      284
  16    JAN02         2354     -11    2360       3.2      -36    -3140      294
  17    JAN21         2353     -12    2359       3.2      -39    -3143      313
  18    FEB06         2352     -13    2359       3.2      -42    -3146      330
  19    FEB18         2353     -12    2359       3.2      -39    -3143      342
  20    MAR03         2352     -13    2359       3.2      -42    -3146      355
  21    MAR10         2352     -13    2359       3.2      -42    -3146      362
  22    MAR21         2351     -14    2358       3.2      -45    -3149      373
  23    APR08         2351     -14    2358       3.2      -45    -3149      391
  24    APR15         2352     -13    2359       3.2      -42    -3146      398
  25    MAY05         2352     -13    2359       3.2      -42    -3146      418
  26    MAY20         2352     -13    2359       3.2      -42    -3146      433
  27    JUN05         2348     -17    2357       3.2      -55    -3159      448
  28    JUN23         2340     -25    2353       3.3      -82    -3186      466
  29    SEP15         2307     -58    2324       3.3     -193    -3297      550
  30    SEP29         2304     -61    2306       3.3     -204    -3308      564
  31    OCT14         2301     -64    2303       3.3     -214    -3318      579
  32    OCT29         2300     -65    2301       3.3     -218    -3322      594
  33    NOV12         2298     -67    2299       3.4     -225    -3329      608
  34    DEC19         2288     -77    2293       3.4     -260    -3364      645
  35    JAN06         2288     -77    2288       3.4     -260    -3364      663
  36    JAN27         2325     -40    2307       3.3     -132    -3236      684
  37    MAR04         2288     -77    2307       3.4     -260    -3364      720
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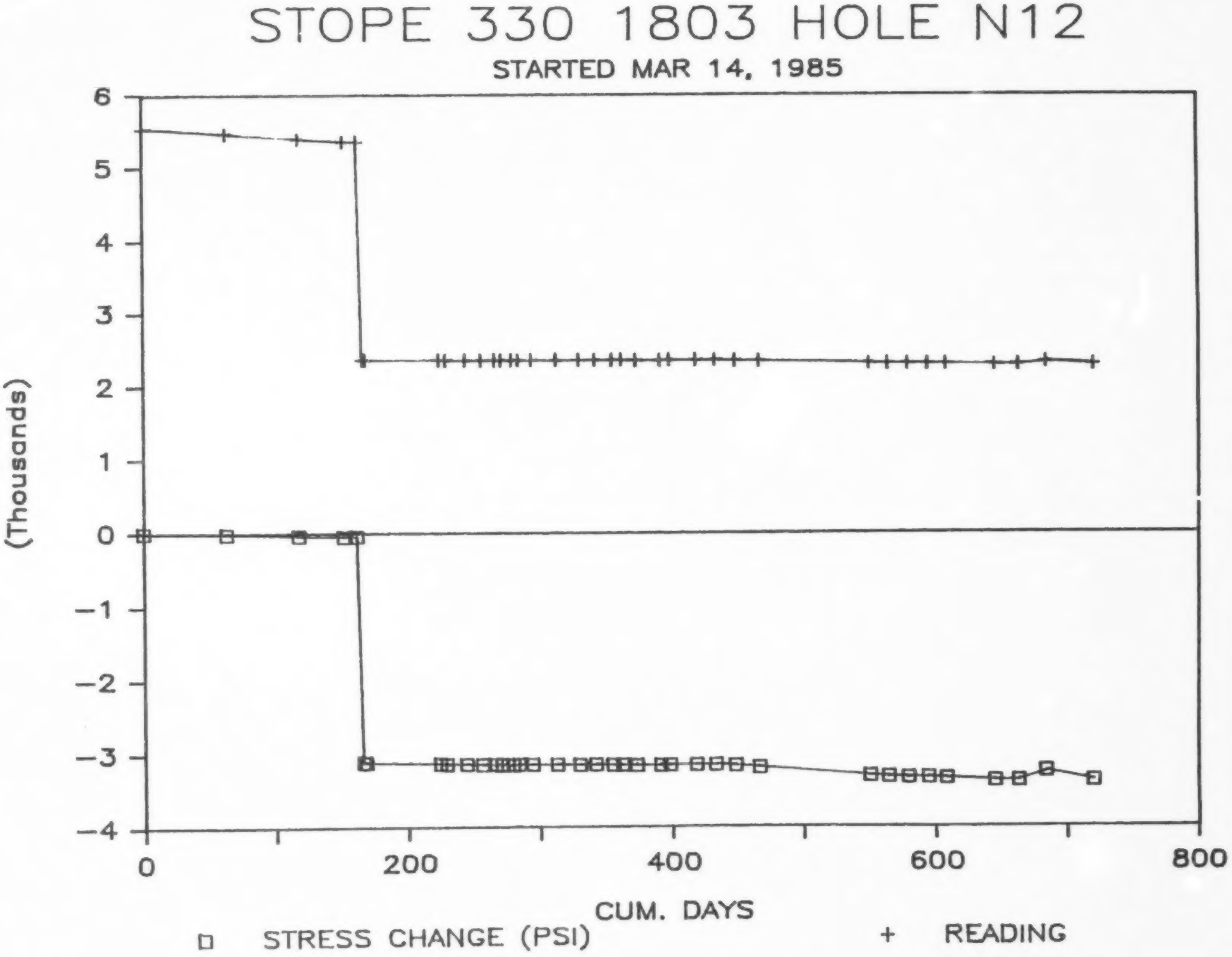


STOPE 330 1803 HOLE N12

STARTED MAR 14, 1985

FIG. 2F.35

FIG. 2F.36

VIBRATING WIRE STRESS M TER RECORD

CALCULATE FROM RDG.-------- 2398

STOPE----ST330 1675 NORTH END
ROCK TYPE --------
HOLE NO.- N102
MODULUS----------- 2000000
DIP------
GUAGE-------------N53-1981
STRESS DIRECTION--
DEPTH FROM COLLAR- 20

RDG. NO.	DATE	INIT READ	READING	CUMM. DIFF.	AVG. RDG	SENSITIV PSI/UNIT	STRESS CHANGE	CHANGE TOTAL	CUMM. DAYS
XX		X							
1	SEP17/86	X	2398	0	2398	0.0	0	0	0
2	SEP22/86	1	2395	-3	2397	3.1	-9	-9	5
3	SEP29		2394	-4	2396	3.1	-12	-22	12
4	OCT14		2397	-1	2398	3.1	-3	-25	27
5	OCT29		2399	1	2399	3.1	3	-22	42
6	NOV12		2403	5	2401	3.1	15	-6	56

STOPE 330 1675 HOLE N102

STARTED SEPT. 17/86

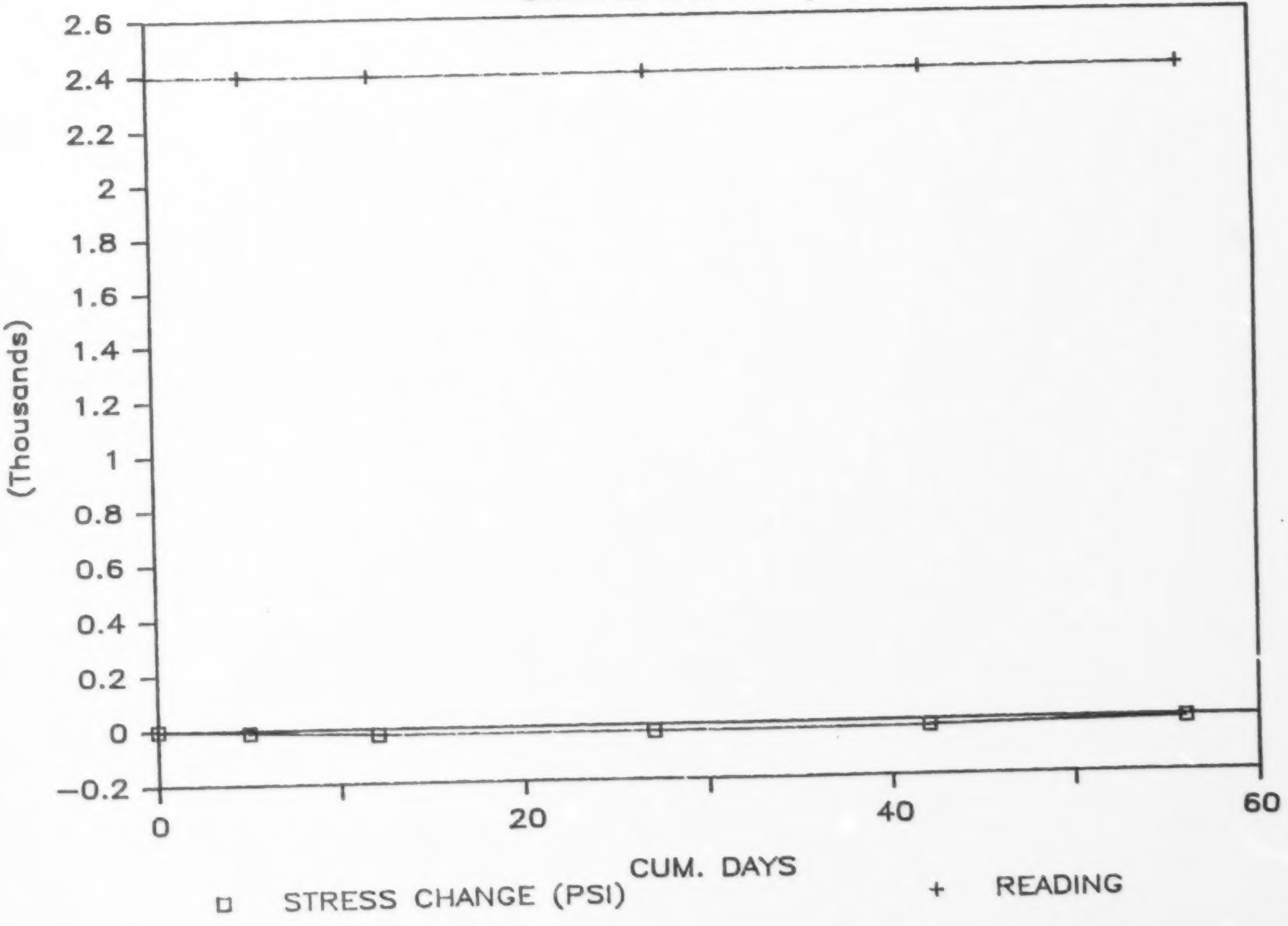


FIG. 2F.37

FIG. 2F.38

```
                  VIBRATING WIRE STRESS M TER RECORD
                                   CALCULATE FROM RDG.--------    2881
STOPE----ST330 1675 NORTH END                 ROCK TYPE --------
HOLE NO.-  N111                               MODULUS----------- 2000000
DIP------                                     GUAGE------------9-111 2084
STRESS DIRECTION--                            DEPTH FROM COLLAR-     40
------------------------------------------------------------------------------
 RDG.          INIT            CUMM.    AVG.  SENSITIV  STRESS  CHANGE   CUMM.
  NO.    DATE  READ  READING   DIFF.     RDG  PSI/UNIT  CHANGE   TOTAL   DAYS
------------------------------------------------------------------------------
  XX      XX    X
   1   SEP17/86  X     2881        0    2881      0.0        0       0       0
   2   SEP22/86  1     2853      -28    2867      1.8      -50     -50       5
   3   SEP29/86        2823      -58    2852      1.8     -106    -157      12
   4    OCT14          2781     -100    2831      1.9     -187    -344      27
   5    OCT29          2755     -126    2818      1.9     -239    -583      42
   6    NOV12          2751     -130    2816      1.9     -248    -831      56
   7    DEC19          2735     -146    2808      1.9     -281   -1112      93
   8   JAN06/87        2729     -152    2805      1.9     -293   -1405     111
   9   JAN27/87        2740     -141    2811      1.9     -270   -1675     132
```

STOPE 330 1675 HOLE N111

STARTED SEPT. 17/86

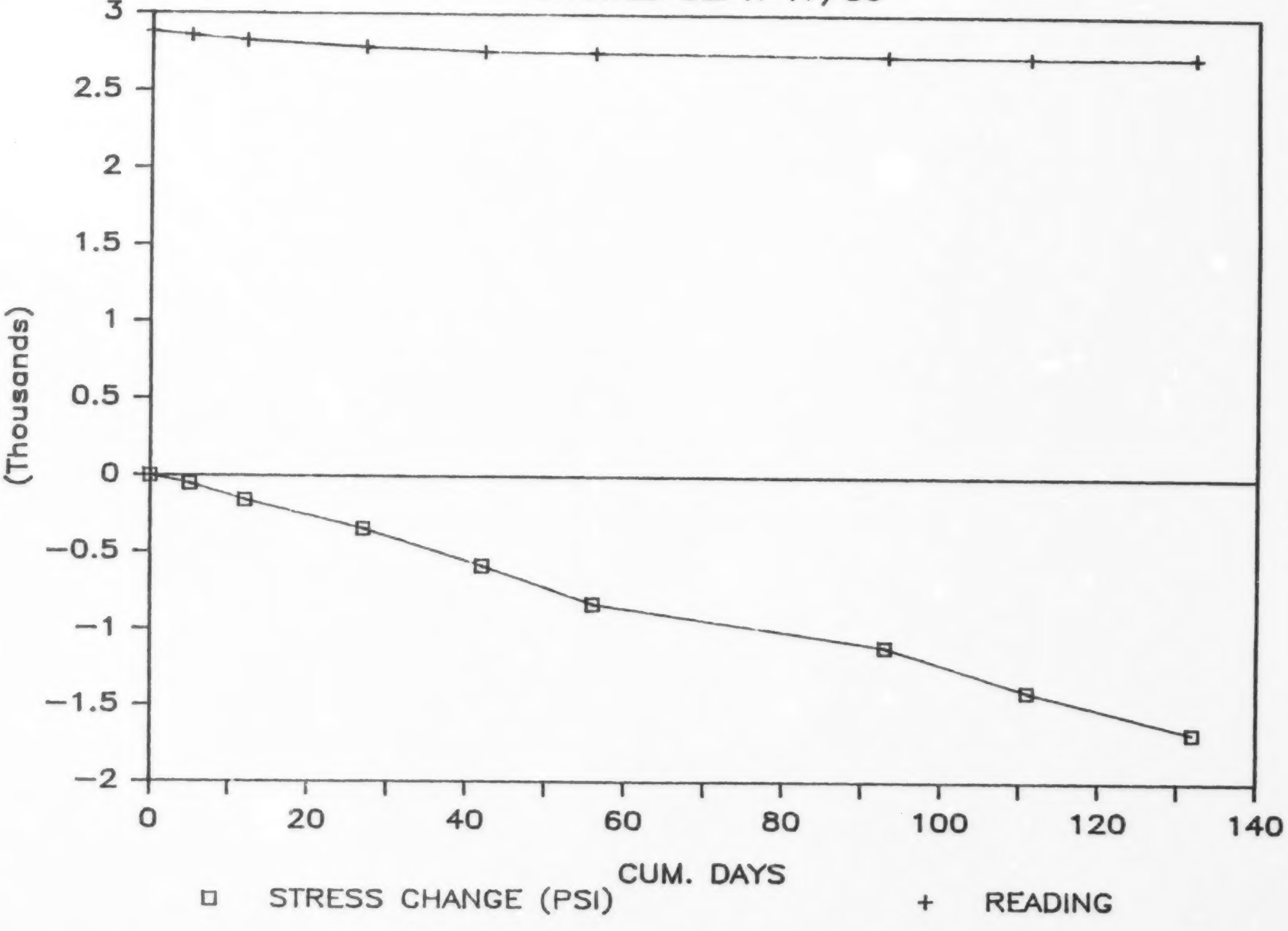


FIG. 2F.39

FIG. 2F.40

```
                     VIBRATING WIRE STRESS M TER RECORD
                                    CALCULATE FROM RDG.--------     2664
STOPE----ST330 1675 NORTH END                   ROCK TYPE --------
HOLE NO.-  N112                                 MODULUS----------- 2000000
DIP------                                       GUAGE------------- T6 2058
STRESS DIRECTION--                              DEPTH FROM COLLAR-      20
--------------------------------------------------------------------------------
  RDG.           INIT            CUMM.    AVG.  SENSITIV  STRESS  CHANGE    CUMM.
   NO.     DATE  READ  READING   DIFF.     RDG  PSI/UNIT  CHANGE   TOTAL     DAYS
--------------------------------------------------------------------------------
   XX       XX     X
    1   SEP17/86   X     2664       0     2664      0.0       0       0        0
    2    SEPT22    1     2657      -7     2661      2.3     -16     -16        5
    3    SEPT29          2654     -10     2659      2.3     -23     -38       12
    4     OCT14          2651     -13     2658      2.3     -29     -68       27
    5     OCT29          2644     -20     2654      2.3     -45    -113       42
    6     NOV12          2636     -28     2650      2.3     -64    -177       56
    7     DEC19          2568     -96     2616      2.4    -228    -405       93
    8   JAN06/87         2541    -123     2603      2.4    -297    -702      111
    9   JAN27/87         2509    -155     2587      2.5    -381   -1083      132
```

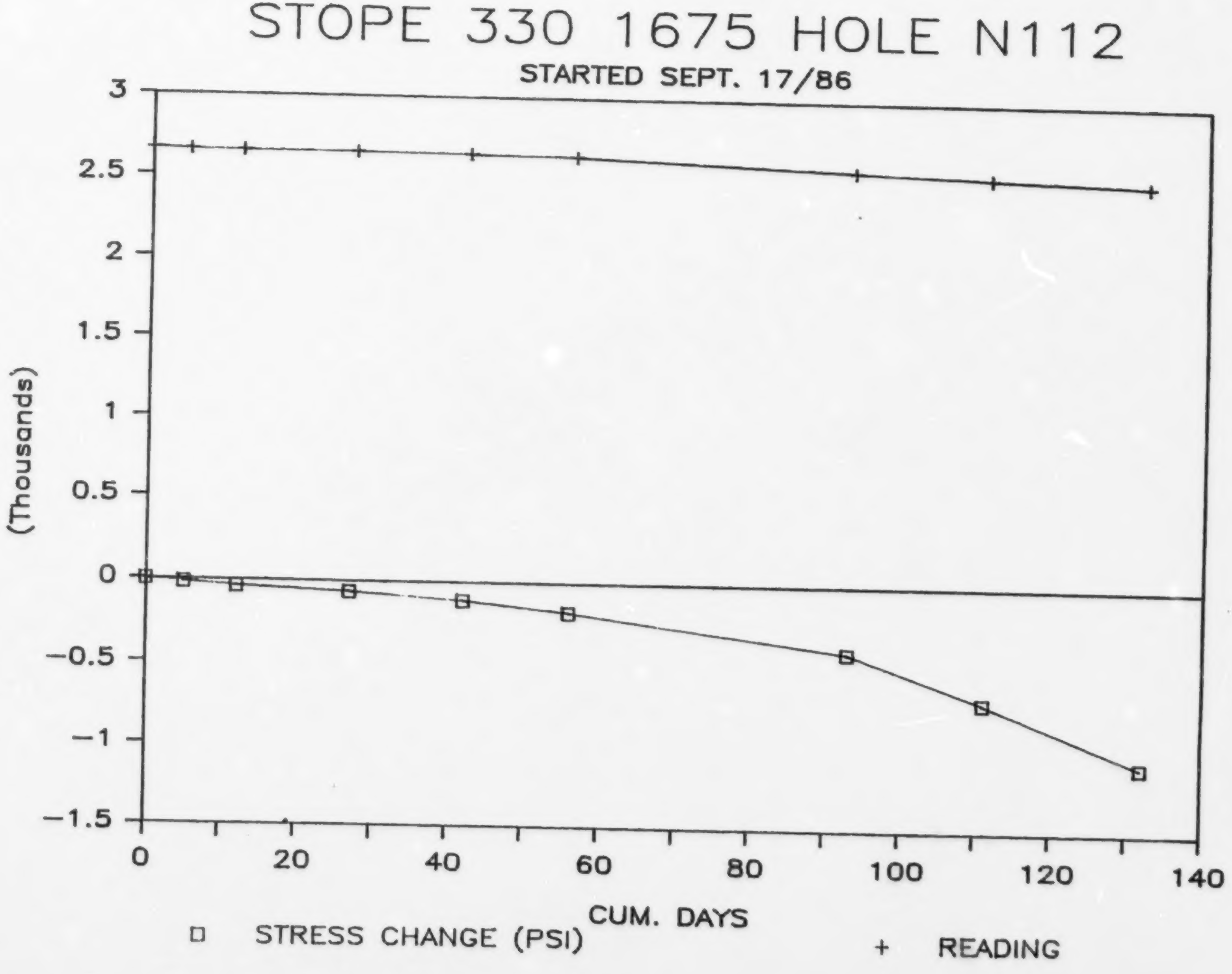

STOPE 330 1675 HOLE N112
STARTED SEPT. 17/86
(Thousands)
3
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
0
20
40
60
80
100
120
140
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.41

FIG. 2F.42

```
                 VIBRATING WIRE STRESS METER RECORD
                                       CALCULATE FROM RDG.--------     2320
STOPE----ST330 1675 NORTH END                 ROCK TYPE --------
HOLE NO.-     121                             MODULUS---------- 2000000
DIP------                                     GUAGE-------------979 1992
STRESS DIRECTION--                            DEPTH FROM COLLAR-      40
---------------------------------------------------------------------------
 RDG.           INIT            CUMM.   AVG.   SENSITIV STRESS  CHANGE   CUMM.
  NO.     DATE  READ  READING  DIFF.    RDG   PSI/UNIT CHANGE   TOTAL    DAYS
---------------------------------------------------------------------------
  XX       XX    X
   1    SEP22/86 X      2320       0    2320      0.0       0       0       0
   2    SEP29/86        2312      -8    2316      3.4     -27     -27       7
   3     OCT14          2303     -17    2312      3.4     -58     -86      22
   4     OCT29          2297     -23    2309      3.5     -79    -165      37
   5     NOV12          2291     -29    2306      3.5    -101    -266      52
   6     DEC19          2281     -39    2301      3.5    -136    -402      89
   7    JAN06/87        2276     -44    2298      3.5    -154    -556     107
   8    JAN27/87        2267     -53    2294      3.5    -187    -743     128
   9    MAR04/87        2261     -59    2291      3.5    -209    -951     164
```

FIG. 2F.43

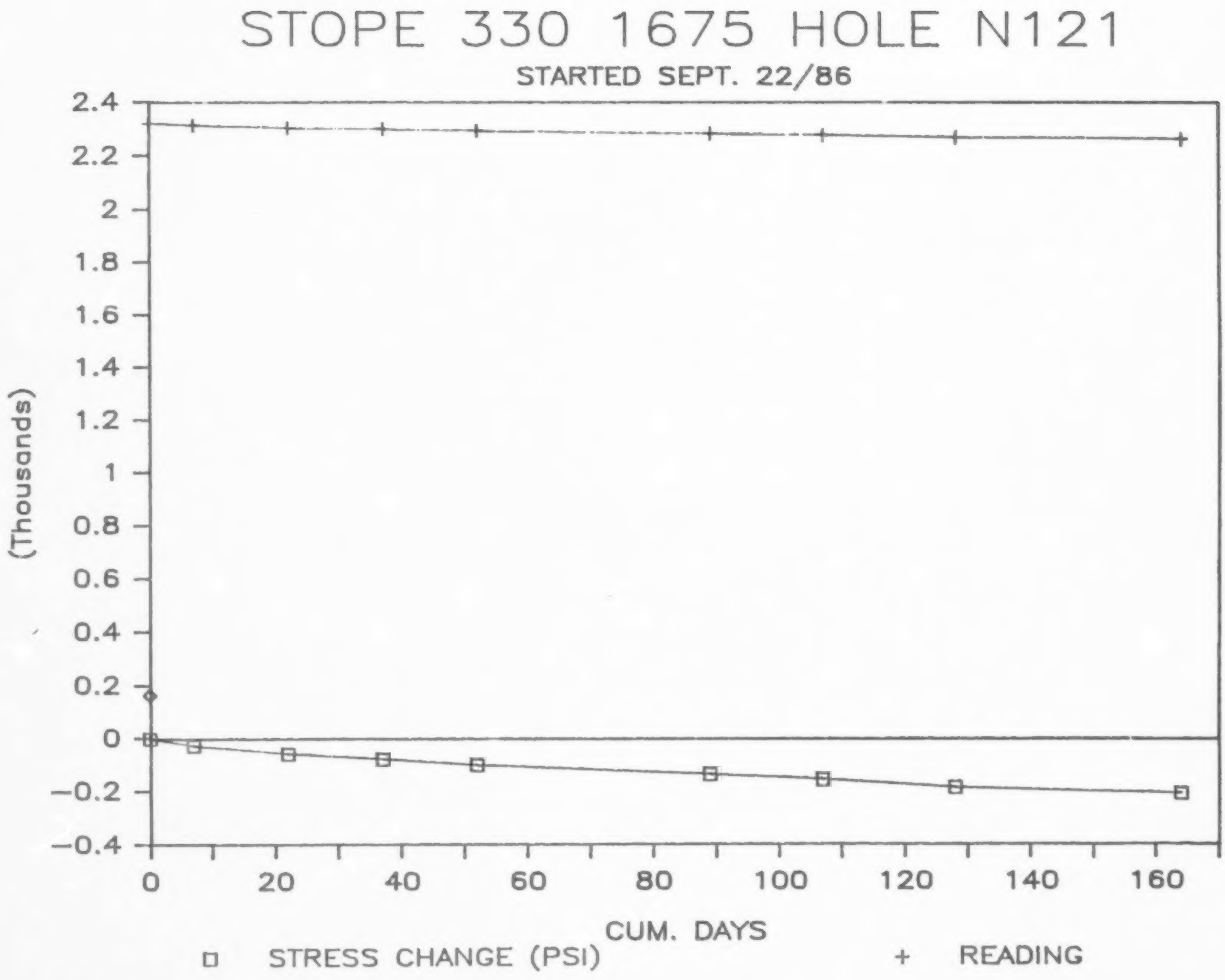

STOPE 330 1675 HOLE N121
STARTED SEPT. 22/86
(Thousands)
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
0
20
40
60
80
100
120
140
160
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.44

```
                VIBRATING WIRE STRESS M TER RECORD
                                     CALCULATE FROM RDG.--------    2577
STOPE----ST330 1675 NORTH END                  ROCK TYPE --------
HOLE NO.-     122                              MODULUS----------- 2000000
DIP------                                      GUAGE------------R46 1836
STRESS DIRECTION--                             DEPTH FROM COLLAR-      20
-------------------------------------------------------------------------------
 RDG.           INIT          CUMM.    AVG.  SENSITIV  STRESS   CHANGE    CUMM.
  NO.     DATE  READ READING  DIFF.     RDG  PSI/UNIT  CHANGE    TOTAL    DAYS
-------------------------------------------------------------------------------
  XX       XX    X
   1   SEP22/86  X     2577      0     2577      0.0       0        0        0
   2   SEP29/86        2522    -55     2550      2.6    -141     -141        7
   3   OCT14/86        2522    -55     2550      2.6    -141     -282       21
   4    OCT29          2529    -48     2553      2.6    -123     -405       37
   5    NOV12          2519    -58     2548      2.6    -149     -554       51
   6    DEC19          2497    -80     2537      2.6    -208     -762       88
   7   JAN06/87        2488    -89     2533      2.6    -233     -995      106
   8   JAN27/87        2476   -101     2527      2.6    -266    -1261      127
   9   MAR04/87        2463   -114     2520      2.7    -303    -1564      157
```

FIG. 2F.45

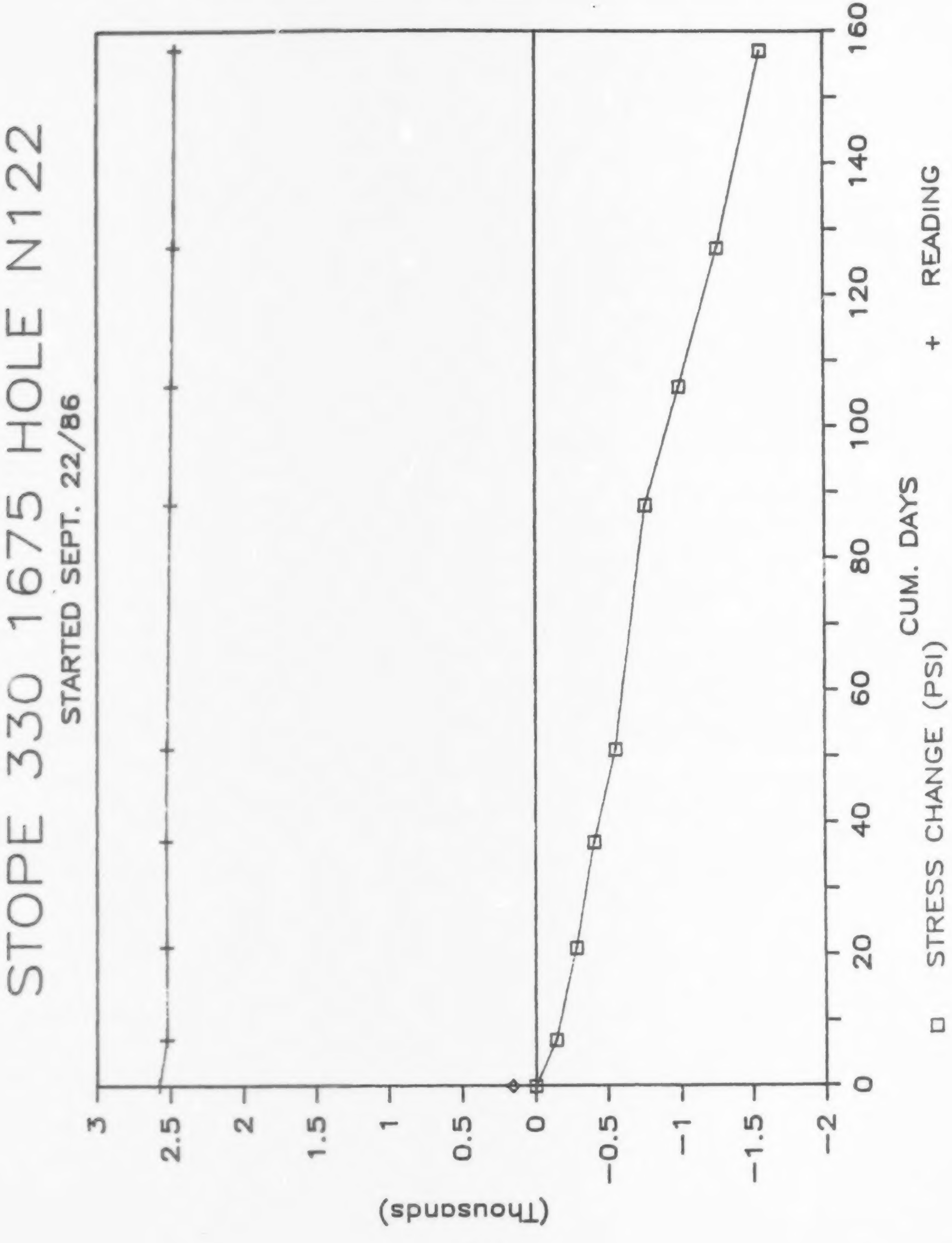

STOPE 330 1675 HOLE N122
STARTED SEPT. 22/86
(Thousands)
3
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
0
20
40
60
80
100
120
140
160
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.46

```
                   VIBRATING WIRE STRESS M TER RECORD
                                              CALCULATE FROM RDG.--------    2638
STOPE----ST330 1675 NORTH END                          ROCK TYPE --------
HOLE NO.-  N131                                        MODULUS---------- 2000000
DIP------                                              GUAGE-------------9121 2148
STRESS DIRECTION--                                     DEPTH FROM COLLAR-     40
------------------------------------------------------------------------------------
 RDG.           INIT           CUMM.    AVG.   SENSITIV  STRESS   CHANGE     CUMM.
  NO.    DATE   READ  READING  DIFF.     RDG   PSI/UNIT  CHANGE    TOTAL     DAYS
------------------------------------------------------------------------------------
  XX      XX     X
   1   SEP22/86  X     2638        0    2638      0.0        0        0        0
   2   SEP29/86  1     2612      -26    2625      2.3      -61      -61        7
   3    OCT14          2595      -43    2617      2.4     -102     -163       22
   4    OCT29          2587      -51    2613      2.4     -122     -285       37
   5    NOV12          2580      -58    2609      2.4     -139     -423       51
   6    DEC19          2567      -71    2603      2.4     -171     -595       88
   7   JAN06/87        2561      -77    2600      2.4     -186     -781      106
   8   JAN27/87        2554      -84    2596      2.4     -204     -985      127
   9   MAR04/87        2544      -94    2591      2.4     -230    -1215      157
```

FIG. 2F.47

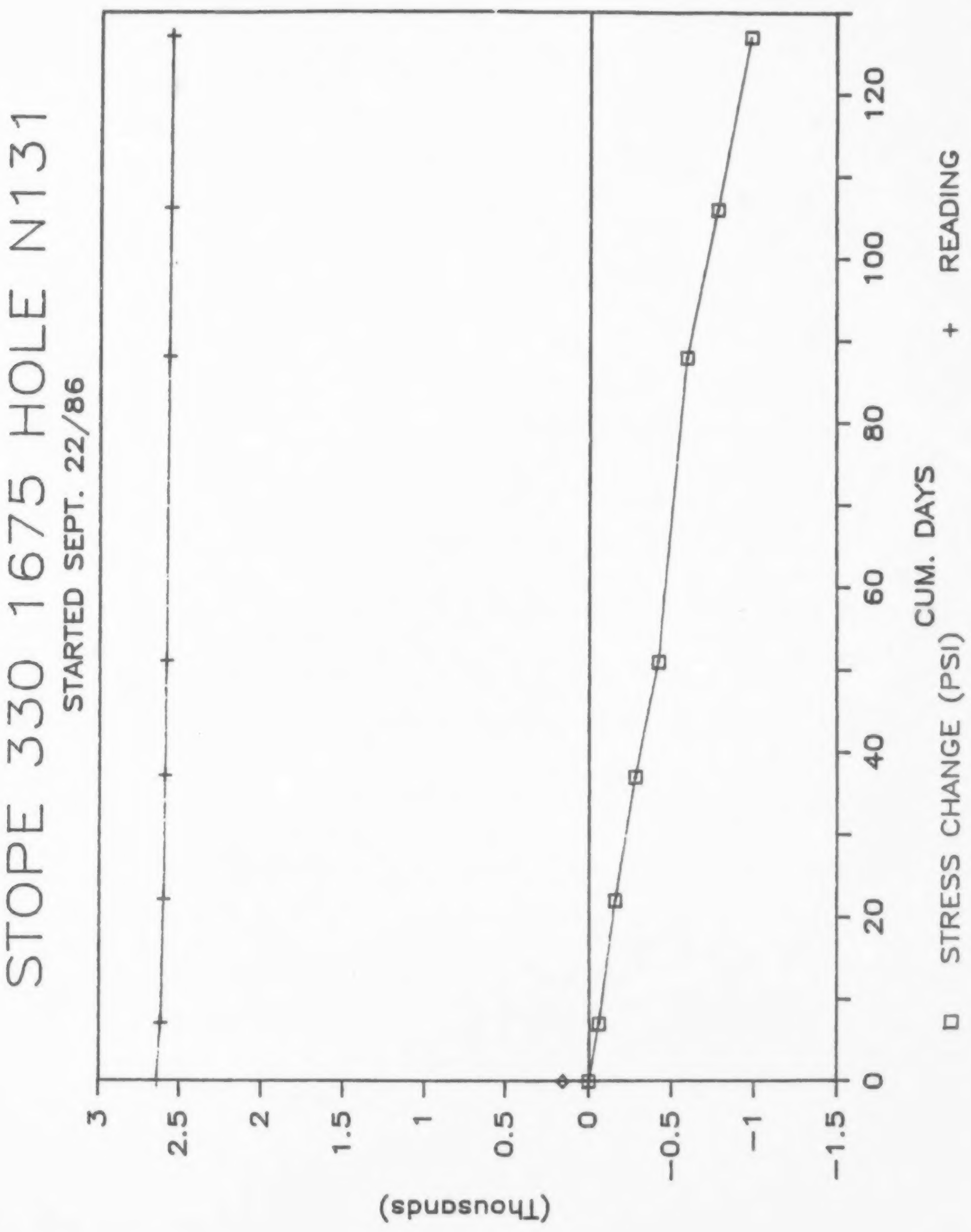
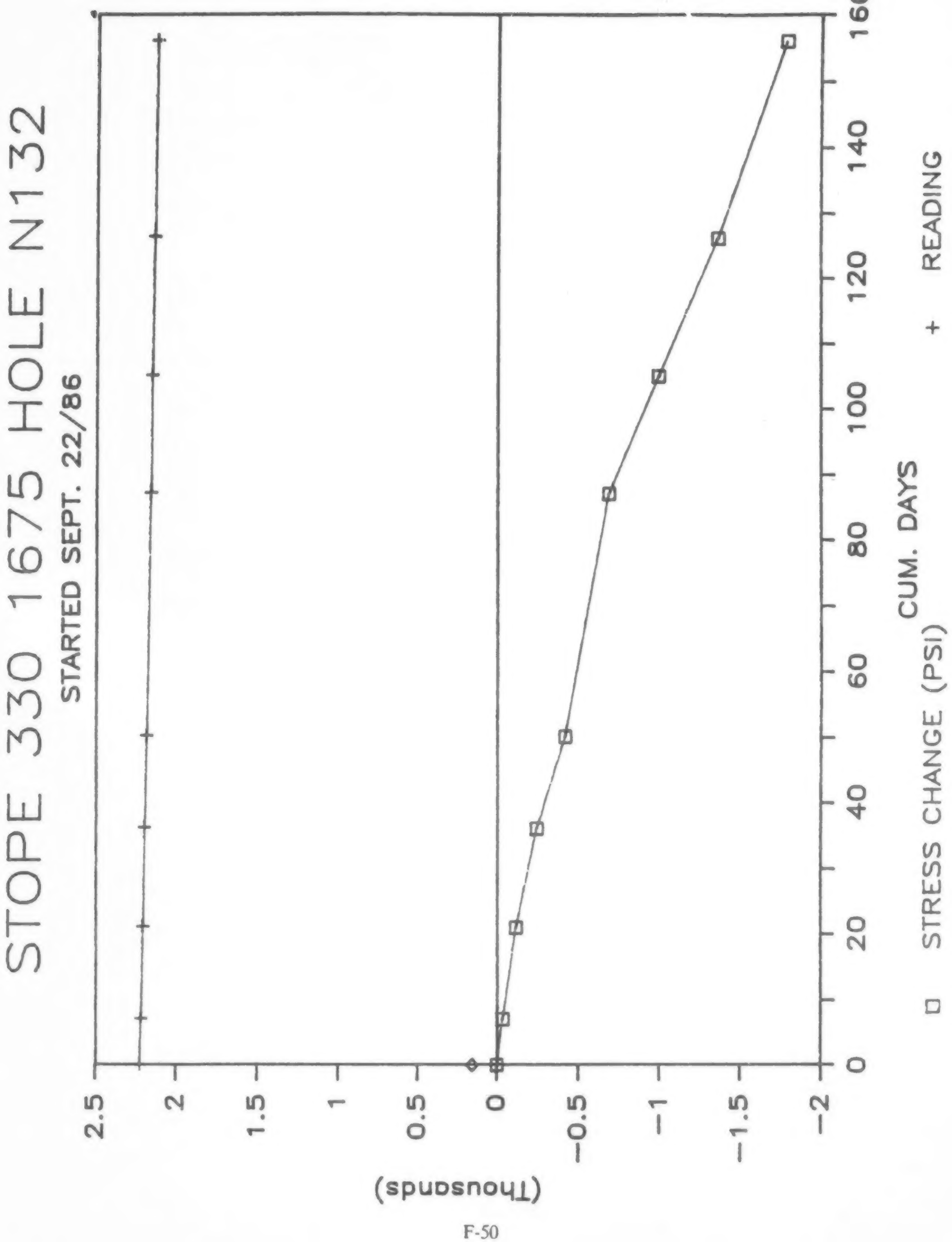

STOPE 330 1675 HOLE N131
STARTED SEPT. 22/86
(Thousands)
3
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
0
20
40
60
80
100
120
CUM. DAYS
□ STRESS CHANGE (PSI)
+ READING

FIG. 2F.48

```
                VIBRATING WIRE STRESS M TER RECORD
                                    CALCULATE FROM RDG.--------     2226
STOPE----ST330 1675 NORTH END                  ROCK TYPE --------
HOLE NO.-  M132                                MODULUS----------- 2000000
DIP------                                      GUAGE------------- R1 1085
STRESS DIRECTION--                             DEPTH FROM COLLAR-      20
---------------------------------------------------------------------------
 RDG.          INIT          CUMM.    AVG.  SENSITIV  STRESS  CHANGE    CUMM.
  NO.    DATE  READ READING  DIFF.     RDG  PSI/UNIT  CHANGE   TOTAL    DAYS
---------------------------------------------------------------------------
  XI      XI     X
   1   SEP22/86  X     2226       0    2226      0.0       0       0       0
   2   SEP29/86        2217      -9    2222      3.9     -35     -35       7
   3   OCT14/86        2205     -21    2216      3.9     -82    -117      21
   4   OCT29/86        2194     -32    2210      3.9    -126    -243      36
   5   NOV12/86        2182     -44    2204      4.0    -175    -417      50
   6    DEC19          2159     -67    2193      4.0    -270    -688      87
   7   JAN06/87        2150     -76    2188      4.1    -308    -996     105
   8   JAN27/87        2137     -89    2182      4.1    -364   -1361     126
   9   MAR04/87        2123    -103    2175      4.1    -426   -1787     156
```

FIG. 2F.49



STOPE 330 1675 HOLE N132

STARTED SEPT. 22/86